

INTERNATIONAL

CRANES

AND SPECIALIZED TRANSPORT

JANUARY 2022

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KHL Group publication

**3000
tonne
ringer
for BMS**

**Market outlook:
slow growth**

**Repair and
refurbishment**

**Versatile self
erectors**

**16 luffers on
site in France**



THE MAGAZINE FOR EQUIPMENT BUYERS AND USERS





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238HSL
150 USt (136 mt)

298HSL Series 2
250 USt (227 mt)

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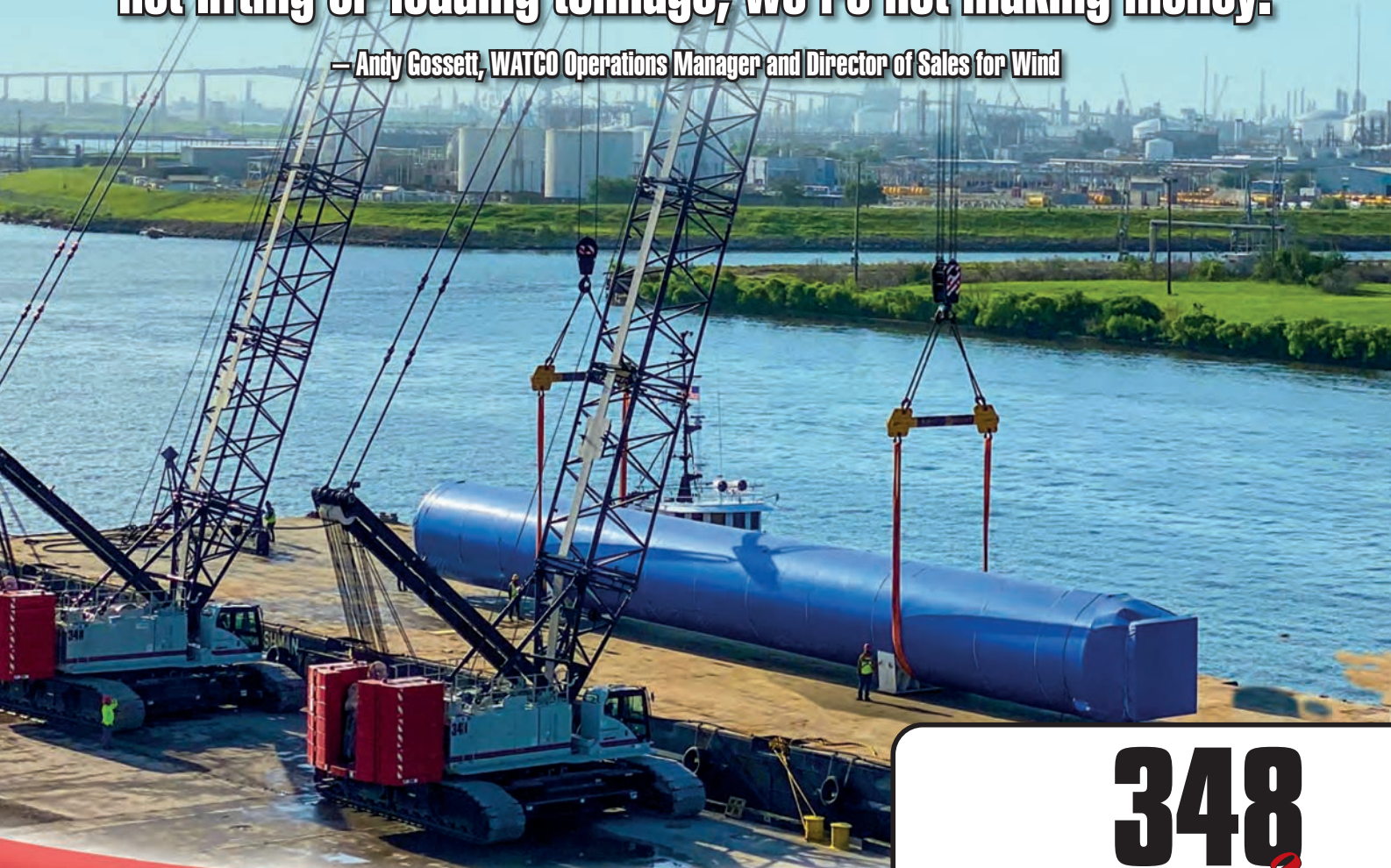
248HSL
200 USt (181 mt)

228HSL
130 USt (118 mt)

138HSL
80 USt (73 mt)

“When you’re docked at port you’re on the clock. If we are not lifting or loading tonnage, we’re not making money.”

— Andy Gossett, WATCO Operations Manager and Director of Sales for Wind



348
SERIES 2

300-Ton | 272 mt Lattice Crawler Crane

Watco port facilities in Houston, Texas lift a 144,000 lb. (65 317 kg) wind turbine tower section using two Link-Belt 300-ton (272-mt) 348 Series 2 lattice crawler cranes.



“When we are loading these towers right now, they have to go into certain sections on the railcars. You have minimal room to play with. You have to be very precise. And with these hydraulics on the Link-Belt, you can maneuver as fast as you want or as slow as you want and still be precise.

That’s what’s great about them.”

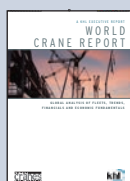
—Daniel Vela, Operator
Watco

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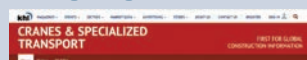




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EDITOR'S VIEW



At the start of this new year we are looking ahead with two features giving some insight into the markets for new machine sales and for crane rental. In the market outlook on page 28, Chris Sleight reports modest increases in new machine sales in 2021 as the market picked up from the previous year's low as a result of the pandemic. That slow pace of recovery looks set to continue into 2022.

From a crane rental point of view things are looking better, according to our Crane Confidence Survey of crane-owning

companies, on page 29. Around a third of respondents to the survey saw conditions improving in 2021 and a large proportion – more than 40 per cent – saw things as at least getting back to being stable. The remainder, just under a quarter of the total, saw a decline.

Looking ahead more than half of respondents expect business will improve in the coming year. More than a third forecast stability in the market and just 12 % expect a decline. It is encouraging to see that more than 80 % of respondents said they will invest more money or the same amount as they did last year in their fleets in 2022.

Only a few days into the new year I was saddened to learn of the untimely death of Jean-Louis Olivier on 8 January. A true pioneer and visionary, he worked for decades to build the company SMIE and its crane collision avoidance systems. He was one of the first crane people I met when I first became involved with the industry in 1998. I remember feeling honoured he gave up so much time to talk to me while I enjoyed his company at an exhibition, outside in the sunshine and alongside friends Leif Loftmyr and Christopher Dawe. Sadly neither of them are still with us either.

All were associated with tower cranes, a common interest that was one of the things to have brought them together. Like Leif and Christopher, Jean-Louis was another of my "Dad" type figures in the industry who, with a view to learning, you could ask potentially daft questions and not get ridiculed. He will be missed by many in the industry from near and far.

ALEX DAHM

Editor



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ON THE COVER



Danish crane rental company BMS has ordered a 3,000 tonne capacity ring crane from Huisman in the Netherlands. Read all about it on page 6.



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The versatility of these tower cranes and mobile folding cranes means they are being used globally. *Niamh Marriott* reports.



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BMS orders 3,000 tonne ring crane

Danish crane rental company BMS has ordered a 3,000 tonne capacity ring crane from Huisman in the Netherlands.

Heavy crane and engineering specialist Huisman will build the Ringer Crane for BMS Heavy Cranes which has an option to take a second unit. Primarily for use in the wind energy industry, the crane will be able to lift components weighing 1,200 tonnes to a height of 225 metres. Loads weighing 3,000 tonnes will be manageable at reduced height.

All the new Huisman Ringer Crane's drives are electric which minimises harmful emissions at the point of use. The manufacturer

said it also improves operational accuracy and energy efficiency to further ensure suitability for the renewable energy industry. It has a modular ring design so it can be rigged with a full 360 degree circle or just a segment, according to application, space, site layouts and so on.

Huisman said it is easy to relocate and to disassemble it into manageable loads for transport. Also, that upending the crane can be done without assist cranes. Low ground bearing pressure is another feature of the design and it can be operated in higher winds than traditional cranes, Huisman said.



How the new 3,000 tonne capacity Huisman Ringer Crane will look in BMS colours at work lifting turbine components on a quayside

Huisman is known for cranes with stiff but lightweight booms and other structures. The company first proposed a super heavy lift ring crane design in August 2013 with the Huisman Compact Ringer Crane (CRC). It

was featured on the front cover of the September 2013 issue of International Cranes and Specialized Transport magazine. Seven models comprised the initial offer, in maximum load moment ratings from 50,000 to 240,000 tonne-metres and from 2,400 to 4,800 tonnes capacity.

This new crane for BMS is based on the CRC design, further developed to make it suitable for handling the larger turbines.

"The crane will ready BMS for installation of the next generation of wind turbines on and offshore and on floating foundations," Huisman said. Operation in other industries will also be possible and delivery is due in the second half of 2023.

XCMG announces 600 tonne tower crane

Chinese manufacturer XCMG said it is going to build what it claims as the world's largest tower crane.

The 600 tonne capacity XGT15000-600S was unveiled at a company ceremony on 26 November. Its maximum load moment rating will be 15,000 tonne-metres.

Bridge construction will be its primary application. It will be used to help build the Changtai Yangtze River Bridge, a cable-stayed road-rail bridge, and the Chaoma railway Maanshan Yangtze River Bridge. Both will be break new records for longest spans for bridges of their type.

The announcement from the world's largest crane manufacturer follows recent news (ICST December 2021) of fellow Chinese manufacturer Zoomlion's 450 tonne capacity giant tower crane.



HIGHLIGHTS

» Three construction workers died in the northern Italian city of Turin after a crane collapsed on a building. Several people were injured in the incident on Saturday morning of 18 December. A crane used in a construction project on **VIA GENOVA** fell onto a seven-storey building while three employees were manning it. Rescue teams immediately tried to save them but two

were found dead. The third died later in hospital. Some pedestrians were also injured in the accident.

» UK-based family-owned lifting equipment provider, **LIFTING GEAR UK**, has been sold to the lifting solutions business group of Axel Johnson International. Lifting Gear UK was founded in 2007 in Lancashire and has 12 depots in England

FRED. OLSEN WINDCARRIER (FOWIC) has ordered a second 1,600 tonne capacity crane from Huisman in the Netherlands.

The new crane is to upgrade FOWIC's Brave Tern offshore wind turbine installation vessel. It will be able to install foundations and all known next generation offshore wind turbines, FOWIC said. Installation of the new high capacity crane is scheduled to be completed in 2024.

"As we announced in 2020, we have initiated an upgrade programme for our existing fleet where Bold Tern is currently undergoing a major upgrade, including replacement of the crane. Brave Tern will be next in line and ready

Brave Tern will get a 1,600 tonne capacity Huisman crane



ALLMI issues safety alert

Following the UK HSE's conclusion of a fatal accident investigation, the trade association for the lorry loader industry ALLMI has issued a safety alert relating to swing-up stabiliser legs.

Keith Silvester, ALLMI technical manager, said, "We would strongly encourage industry stakeholders to contact ALLMI for a copy of the Safety Alert. It contains important advice for those using swing-up stabilisers, as well as a section covering the 'Immediate Actions Required' by all parties, whether involvement with lorry loaders relates to installation, service / repair, training, the running of vehicles or sites, or overseeing lifting operations."

Swing-up type stabilisers are fitted to lorry loaders predominantly to negate the need for widescale relocation of chassis furniture during installation and have become increasingly common in the last 15 years.

Operation can be manual or hydraulic and is either via levers at the crane base or remote control, depending on specification.

<https://www.allmi.com/guidance-documents/swing-up-stabilisers>

Wolff launches large low top tower crane

Tower crane manufacturer and rental company Wolffkran has revealed its first 800 tonne-metre class saddle jib crane.

Increasing the use of prefabricated components means larger tower cranes are needed to lift them on site. Wolffkran has responded with its largest saddle jib crane to date, the new Wolff 8076 Compact. Compact in the name refers to the tower head, or cat head, above the horizontal jib. It is around 10 metres lower or shorter than a conventional design, the company said.

Capacity is 40 tonnes and the maximum jib length is 80 metres, at the end of which the crane will lift 8.4 tonnes. Maximum freestanding height is 100 metres.

"We wanted to design a large yet economical crane and get the maximum capacity out of the steel structure. That's why we opted for a low-top design, which we call Compact," explained Wouter van Loon, Wolffkran product manager.

Another first is four chords in the first three sections of the jib instead of the usual three. "This allowed us to optimise the transfer of forces along the jib and reduce individual component weights, resulting in around 40 per cent higher lifting capacity

The lifting capacity of the 800 tonne-metre Wolff 8076 Compact is 40 tonnes



The new Wolff 8076 Compact with its low top tower head design is stronger than the largest in Wolffkran's Cross series



than with the three-chord design," van Loon said.

The 132 kW HW 40132 FU winch gives a maximum hoisting speed of 95 metres per minute to help minimise load cycle times. With the maximum load of 40 tonnes the hoisting speed is 17 m/min on two falls.

Depending on jib length it is possible to reduce the counter jib from 30.3 to 22.3 metres. As with the lower cat head this counter jib reduction helps

where multiple cranes are working in close proximity. On a 55 metre jib with shortened counter jib the tip load capacity is 16.6 tonnes.

Further new Wolff models along the same lines as the 8076 Compact are in development, "We are evaluating a heavier lift version of this model, as well as one with a longer reach," van Loon said. They will use the same basic components as the new 8076 Compact.



when the next generation turbines enter the market. As a leading turbine installation and service provider we continue to develop our teams and assets in order to remain a trusted partner for our clients in the years to come, as we see significant growth and great potential in offshore wind," said Alexandra Koefoed, Fred. Olsen Windcarrier CEO.

Crane upgrades are programmed for three FOWIC vessels to allow them to install 13 to 15 MW turbines and bigger ones if they come to market. Completion of the first upgrade, to Bold Tern, is underway at the Keppel Fels yard in Singapore and due to be ready in early 2022.

and Scotland. It offers equipment hire, specialist sales and services, contract lifting, bespoke design and fabrication.

Axel Johnson International is a global industrial group of more than 150 companies. It comprises six business groups as follows: driveline, fluid handling, industrial, lifting, power transmission, and Transport Solutions.

» UK mobile crane rental specialist AINSCOUGH helped assemble a 2,000 tonne tunnel boring machine (TBM) for the Midlands section of the HS2 high speed rail project.

December saw drilling start in Warwickshire to create a mile long tunnel. Ainscough installed the cutter head with three support gantries.

New and updated HSC crawler cranes

Sumitomo Heavy Industries Construction Cranes Co., Ltd. (HSC) has four new and updated crawlers in 80, 100 and 180 tonne capacities.

A new heavy duty crawler joins three updated models introduced in December and January by the Japanese manufacturer.

The new 100 tonne capacity HD model replaces the SCX900HD-2. Capacity is 10 tonnes more than the outgoing 2-series model. The new SCX1000HD-3 is developed for heavy-duty work from the company's SCX-3 series crawlers. Booms lengths from 12 to 60 metres can be achieved.

Applications include

trenching for diaphragm walls and constructing foundations. As standard fitment it has a 13.5 tonne-rated line pull winch with free-fall. A 15.5 tonne version is on the options list. Maximum line speed on the main drums is 110 metres a minute.

Also standard is an oil cooler. Adding the optional second cooler allows the machine to do high-load trenching for continuous diaphragm walls, HSC said. Other standard features include swing restriction, auto drum lock, catwalks and handrails on the upper works.

The 280 kW Cummins QSL9



The SCX-3 series 80 and 100 tonne capacity crawlers with EU Stage V engines went on sale in December 2021

engine meets EU Stage III A or Tier 3 exhaust emission regulations. It has auto idle stop to save fuel and there is an ECO winch mode.

The three updated, SCX-3 series, models all have EU Stage III compliant Cummins engines. They are the SCX800A-3, SCX1000A-3 and the SCX1800A-3, in 80, 100 and 180 tonne capacities, respectively. Power for all three is from the new-generation 209 kW Cummins B6.7 diesel engine. They have the control system with ECO winch mode and auto idle stop for energy-efficiency. Two-stage exhaust aftertreatment includes a particulate filter and urea selective catalytic

reduction (SCR).

The SCX800A-3 can have up to 54.5 metres of boom or a maximum boom and jib combination of 45.5+18 metres. For the 100 tonne SCX1000A-3 it is 60 metres of boom or a maximum boom and jib combination of 51+28 metres.

Maximum main boom and jib combination on the SCX1800A-3 Stage V is 75+31 metres, allowing it to cover a wide working area to further streamline operations on worksites, HSC said. Options include the two-auxiliary sheave to increase lifting performance and a 132 kN (13.5 tonne) rated line pull winch. The SCX1800A-3 was launched in mid-2020 with EU Stage III A or Tier 3 engine.

The 100 tonne capacity HSC SCX1000HD-3 is a heavy duty crawler crane announced in January 2022



The 180 tonne capacity HSC SCX1800A-3 crawler crane with EU Stage V engine from January 2022



HIGHLIGHTS

» **MATCOM** in Canada has expanded its activities to include the West Coast, specifically British Columbia. It has opened its second office in Surrey, British Columbia. The company specializes in machinery moving, industrial mechanical, industrial service, warehousing and logistics, servicing Ontario among other provinces and parts of the United States.

» **MAZZELLA COMPANIES** has acquired Contractors & Industrial Supply (CIS), further strengthening Mazzella's footprint in Tennessee and Alabama, USA. It now operates as Mazzella CIS. Terms of the transaction are undisclosed. Founded in 1970 by Hank Schiller, CIS is a rigging equipment supplier. Industries served include manufacturing, construction, steel and marine.

Ireland-based **CRANE HIRE LIMITED** has added a new 700 tonne capacity Liebherr LTM 1650-8.1 wheeled mobile telescopic crane.

Jarlath and Elysia O'Leary, centre, pictured in front of the new LTM 1650-8.1 with Liebherr representatives at the Liebherr-Werk Echingen factory in Germany. From left to right, Michael Heckenberger, David Holohan, Richard Everist and Reinhold Breitenmoser.





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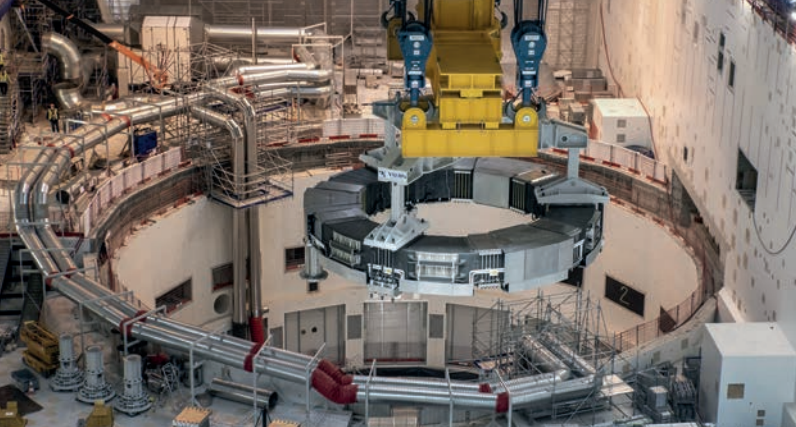
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To access the magnet, each customised HCL1008 hydraulic cylinder is connected to an EVO synchronised lifting system

Enerpac to lift fusion magnet

When the fusion tokamak vacuum sectors of the ITER research centre project in France are completed in 2024, equipment from Enerpac will complete the next stage.

Nine Enerpac hydraulic cylinders will lift an 11 metre diameter, 320 tonne, circular poloidal magnet (PF6) into position. The cylinders are already pre-installed at the bottom of the machine and will eventually move the magnet into place at the base of the tokamak.

The PF6 magnet is at the bottom of the vessel on temporary supports while the ITER tokamak is constructed above it, after which it will be completely enclosed and unreachable by crane. To access the magnet, each customised HCL1008 hydraulic cylinder is connected to an EVO synchronised lifting system, enabling each of the nine lifting

points to be monitored and controlled by one operator.

Enerpac said the EVO pump has highly accurate positional control, to within 1 millimetre, between the lagging and leading cylinders, and it includes built-in warning and stop alarms to improve safety.

In addition, the PF6 lifting EVO pump has a flow control valve to reduce the lifting speed even more. During the staging lifts, the custom single acting cylinders with spring return will act as locking pins, to hold the position of the magnet.

The cylinders' 200 millimetre stroke will allow stack beams to be inserted beneath the PF6 ring. After lowering the magnet onto the stack beams, the hydraulic cylinders will be repositioned on the next level of stack beams, and the process repeated until the magnet can finally be bolted to the tokamak.



Italian rental company I.B.A. CRANE installed the Vatican's main Christmas tree in St. Peter's Square, using a Grove GMK5250L-1 all terrain crane. I.B.A. Crane got the five-axle 250 tonne capacity mobile crane from local Grove dealer FIMI in December 2020. It said it made the most of the crane's compact dimensions and efficient operation. The 113-year-old tree was 28 metres tall and weighed 8 tonnes. It was illuminated on 10 December.

Makers on the up

The New Year is off to a flying start for crane manufacturers, with some seeing large increases on their share prices in comparison to this time last year, and notable improvements from last month, too. Though USA-headquartered global crane manufacturer Manitowoc had a drop of -10.15 per cent from last month, its share price was 55.92 per cent higher than 12 months ago.

Following concerns about their merger raised by competition authorities, Cargotec and Konecranes have submitted a remedy package to the European Commission. It includes divestitures that it said would eliminate business overlaps. If approved, the companies remain confident that their merger will be completed by the end of the second quarter of 2022. Until all merger closing conditions are met, both companies will continue to operate separately and independently. The Konecranes share price remains relatively stable, despite a small dip from last month. The full effect of the planned merger will be revealed in time.

Austrian manufacturer Palfinger also recorded strong year-on-year growth, with a share price improvement of nearly 40 per cent (39.24). It follows the change in its tie up with Sany Europe.

JANUARY /C SHARE INDEX

STOCK CURRENCY	PRICE AT START	PRICE AT END	PRICE CHANGE	% CHANGE	PRICE 12 MTHS AGO	12 MTH % CHANGE
/C Share Index*	102.18	102.39	0.21	0.20	117.93	-13.36
Legacy /C Share Index**	344.39	334.95	-9.44	-2.74	277.59	24.06
Dow Jones Industrial Average	35,804	36,338	533.92	1.49	30,148	18.76
FTSE 100	7,093	7,385	291.78	4.11	6,501	9.10
Nikkei 225	28,752	28,792	40.08	0.14	26,657	7.86
Hitachi Construction Machinery	YEN 3,425	3,325	-100.00	-2.92	2,854	20.01
Konecranes	€ 35.48	35.16	-0.32	-0.90	28.76	23.37
Kobe Steel	YEN 581	577	-4.00	-0.69	547	6.22
Liugong	CNY 7.46	7.71	0.25	3.35	7.49	-0.40
Manitowoc	US\$ 20.69	18.59	-2.10	-10.15	13.27	55.92
Palfinger	€ 34.60	34.40	-0.20	-0.58	24.85	39.24
Sany Heavy Industry	CNY 22.49	22.80	0.31	1.38	33.60	-33.07
Tadano	YEN 1,061	1,108	47.00	4.43	879	20.71
Terex	US\$ 47.73	43.95	-3.78	-7.92	35.85	33.14
XCMG	CNY 6.01	5.99	-0.02	-0.33	5.42	10.89
Yongmao Holding	SGD 0.77	0.70	-0.07	-9.09	0.74	4.05
Zoomlion	CNY 7.03	7.17	0.14	1.99	9.30	-24.41

*/C Share Index, 1 Jan 2011 = 100

**Legacy /C Share Index, end April 2002 (week 17) = 100

EXCHANGE RATES – VALUE OF US\$

CURRENCY	VALUE AT START	VALUE AT END	VALUE CHANGE	% CHANGE	VALUE 12 MTHS AGO	12 MTH % CHANGE
CNY	6.389	6.373	-0.02	0.25	6.53	-2.17
€	0.886	0.883	0.00	0.39	0.82	7.98
Yen	113.949	115.055	1.11	-0.96	103.64	9.94
UK£	0.750	0.741	-0.01	1.26	0.74	1.69

Period: Weeks 48-53

CATME programme update

The third Cranes and Transport Middle East (CATME) conference will be held in Dubai, UAE, on 22 and 23 March 2022.

Topics in 2022 event will include improving health and safety in lifting and transport applications, productivity and fleet management, best practice and case studies from around the world. The programme is shaping up as follows:

KEYNOTE SPEAKER:

Paul van Gelder, CEO, Mammoet.

SPEAKERS:

Philippe Verdeure, managing director projects APAC & ME, Sarens.

TOPIC: *Raising the roof: a major*



lifting project on Dubai Expo.

Marc Eijssen, global technical and business development manager – marine and Industrial fibres, DSM Protective Materials.

TOPIC: *The synthetic gear revolution in transportation, lifting and hoisting is now.*

Mustafa Al Abdulmohsin, Heavy Lift Engineering Group, Saudi Aramco.

TOPIC: *Lifting in the energy industry: highlights of Saudi Aramco's crane operations.*

Mohammed Sadiq Sheriff, technical director, Gulf Test Safety Consultancies.

TOPIC: *Inspecting old cranes: key actions in Dubai and the Middle East.*

Chris Sleight, managing director, Off-Highway Research.

TOPIC: *Global market outlook for cranes and construction equipment.*

Burhan Kuris, managing director, Middle East and North Africa, Hareket MENA FZE.

TOPIC: *Vertical integration in lifting and transportation.*

■ For more details on CATME 2022 see: www.khl-catme.com



Pictured are Suhail Shaikh, chairman and managing director of Sahil Freight Express Pvt Ltd (left) and MyCrane founder and director Andrei Geikalo

MyCrane signs Indian franchisee

Digital crane selection platform MyCrane has appointed Mumbai-based Sahil Freight Express as a pan-India franchisee.

MyCrane founder and director Andrei Geikalo said, "India has one of the fastest digitising economies in the world, as well as a very positive outlook for the Indian crane and construction sector, so we are delighted to be opening in the country."

Suhail Shaikh, chairman and managing director of Sahil Freight Express Pvt Ltd, said, "MyCrane has a huge opportunity to make life easier for those seeking crane rental services, by connecting them with a wide range of reliable equipment providers who have been thoroughly vetted by our team."

Steep slope lift for Palfinger crawler



Grabmaier used a Palfinger PCC 57 002 crawler crane to erect power poles in the mountains of St. Johann in Pongau, Austria.

The company was tasked with lifting electricity pylon elements weighing up to 2.5 tonnes to a height of 15 metres.

The elements were assembled over a steep uncompacted section of land with a slope

Grabmaier was tasked with lifting electricity pylon elements weighing up to 2.5 tonnes

gradient of more than 28 degrees. The lifts took place in a confined 7 by 8 metre space.

"What impressed me about the crawler crane was the extraordinary slope it can cope with," said client Markus Viehhauser, owner of VIMA Maschinen-Service.

"With a mobile crane, the effort would have been far too great, as it would have required soil compaction on site in addition to the road widening and reconstruction."

"With the crawler crane, we are more optimised on the road and, thanks to the perfect weight distribution, we were also able to drive to the site without any crop damage," said Viehhauser.

HIGHLIGHTS

» The **ESTA USERS' NIGHT AND AWARDS 2022** will take place in person at the five star Grand Hotel Huis ter Duin in the Netherlands on Thursday 17 March 2022.

ESTA is inviting the industry to join them for what is promised to be a special evening and to take the opportunity to show the world the best in the abnormal transport and mobile cranes.

Tadano is gold sponsor. Liebherr, Sennebogen and Spierings Mobile Cranes are silver sponsors and Nooteboom is a supporter.



Austrian crane rental company **KRAN MITTERHAUSER** has added a new Tadano ATF 100 4.1 all terrain crane to its fleet.

The 100 tonne capacity model has a 60 metre boom and was ordered with a 17.7 metre boom extension. This is enough to lift loads of 7.3 tonnes to a radius of 14 metres.

The 100 tonner was chosen as it can be used for a wide range of applications and can be configured in different ways with various boom extensions, the company said. Mitterhauser sees a benefit in the self-fitting boom extensions, as this means an auxiliary crane is not required for the assembly.

Other accessories, such as the second winch, which can be used to turn and tilt concrete components, will mean the company can use the new model as an alternative to a tower crane.



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Comansa bridges Philippine islands



Two tower cranes from Comansa are helping to build a bridge connecting a tourist hub and international airport in the Philippines

Two Comansa 21LC660 flat top tower cranes are working on the construction of a cable-stayed bridge which will join two islands in the Philippines.

The Cebu-Cordova Link Expressway, will join tourist destination Cebu City, the second largest city in the country, with Mactan Island, site of the

international airport. The new bridge aims to alleviate problems of heavy traffic over the two existing bridges.

The new bridge will span 650 metres and is supported on two 150 metre high towers. The first bridge tower is out in the water and inaccessible by land. Its crane had to be erected using a crawler

crane mounted on a boat. The second tower, also out in water, has the crane on a temporary island or dock made using fill

material. It was erected using a crawler crane set up on the temporary island.

The tower cranes have 80 metre booms and were also used to lift heavy equipment to the deck during the construction phase, which included mobile cranes, boom trucks and concrete pumps weighing up to 32 tonnes.

Given the bridge's location in a country affected by typhoons, the cranes were designed to support winds of up to 250 km/h. Their height and proximity to Mactan-Cebu Airport meant both cranes were fitted with safety lights.

SC&RA announces Legendary anniversary book

In anticipation of its 75th anniversary in 2023, the Specialized Carriers & Rigging Association, (SC&RA) in conjunction with ICST publisher KHL Group, will publish a book titled *Legendary*.

The coffee table style publication will feature legendary people, jobs and equipment to have defined the crane, rigging and specialized transport industry through the years. It will update the history of the SC&RA since 2008, when SC&RA and KHL Group published a 60th anniversary book.

"SC&RA would like to encourage member companies to furnish photographs and narrative copy related to milestones in the history of our industry," said Joel Dandrea, SCRA CEO. "We are very excited about this new publishing project that will be presented at the SC&RA Annual Conference in April 2023," continued Dandrea. To participate in the first round of profiles, please contact Matt Burk (matt.burk@khl.com) or Bev O'Dell (bev.odell@khl.com) via email.



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SCX1800A-3

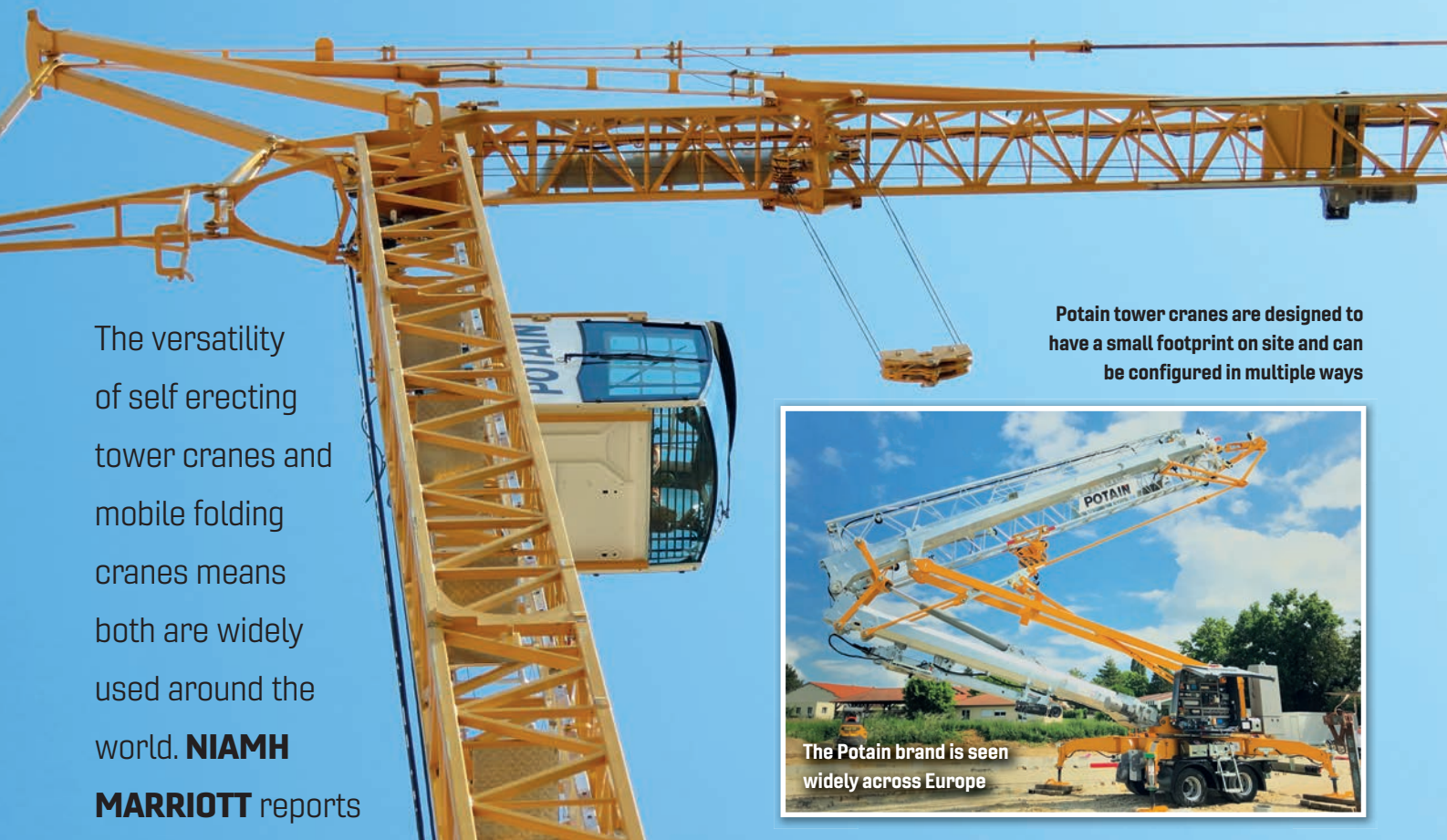
175 t x 4.1 m



SCX1000A-3

100 t x 3.8 m





The versatility of self erecting tower cranes and mobile folding cranes means both are widely used around the world. **NIAMH MARRIOTT** reports

Potain tower cranes are designed to have a small footprint on site and can be configured in multiple ways



The Potain brand is seen widely across Europe

Towering heights

Folding construction cranes are good for a wide range of lifting applications, increasingly even beyond construction, and can be used on all sorts of projects.

The Manitowoc group with its Potain brand offers models that can lift 1.8 tonnes upwards. The brand has four production units across Europe to supply demand to its customers; at Moulins and Charlieu in France, Niella Tanaro in Italy, and Baltar in Portugal.

Its GMA self-erecting range has 20 models, including the Igo, Igo T, Igo M, Hup and Hup M. This type of crane is mainly intended for construction companies working on short-term construction sites from individual houses to engineering structures.

The range offers jib lengths from 20 to 50 metres and hook heights to 38 metres in horizontal, and even 61 metres in the raised jib position. The company concedes that, “as powerful as the GMA range cranes are, they have limits and will never be able to compete with the larger top slewing cranes.” The latest additions to the GMA Potain range are the Hup M 28-22, and most recently the Igo T 99.

NEW MODELS

The Hup M 28-22, the latest in the GMA range, with an integrated transport axle is popular



Manitowoc’s Potain Igo T 99 was launched at the JDL show in France from 23 to 25 June 2021

with carpenters’ roofers and masons, the company says. Its integrated transport axle (25 or 80 km/h), and permanent counterweight make the crane easy to transport. The maximum load is 2.2 tonnes and can still lift 850 kg at the end of its 28 metre jib.

“This crane completes our range of cranes with integrated transport axle and offers an alternative to the already very popular Igo M 14,” says a spokesperson.

The Igo T 99 was launched at the JDL equipment exhibition in France in June 2021. A telescopic crane that has automated assembly is ideal for construction sites with high constraints, the company says. This crane has a high lifting capacity of 6 tonnes (1.2 tonnes at 48 metre jib-end) and a hook height in the horizontal boom position of up to 38.5 metres, and is suitable for construction work.

Manitowoc says that the main innovation on this telescopic GMA model is the development of a user interface called Smart Set-up which simplifies and secures the assembly and disassembly processes from the remote controller. With this system, the crane operator is guided via a colour screen directly on the transmitter of the remote controller, meaning there is no need to get closer to the electrical cabinet. The company says the operator is therefore provided with all the necessary information they may need.

“One of the main advantages of small capacity self erectors is their mobility. Our Igo M and Hup M range with integrated transport axle allows rapid transport between the

SELF ERECTING AND MOBILE FOLDING CRANES



Spierings has already delivered 70 eLift cranes to customers in Europe

available for these models as they were all involved in theatre construction. The cranes worked across three European sites to assist with building and dismantling of sets, and one was even used as part of the production.

ITALIAN INSPIRATION

First up, a Liebherr 125 K self erecting crane was used for the Opera Festival held at the Arena Di Verona, the Roman amphitheatre in Verona, Italy. Italian Liebherr dealer Niederstätter opted for Liebherr's large fast erecting crane as it was easy to assemble. Various productions were staged over the summer months, which meant the imposing stage sets had to be changed several times.

The 125 K was unfolded and disassembled quickly to meet the requirements of this unique job. The crane was positioned directly on the ancient walls atop a six-metre gantry; a solution that minimised

the amount of space required. A Liebherr LTM 1160/2 mobile crane lifted the fast-erecting crane onto the gantry and transported it back down at the end of the festival season.

The 125 K also made a big impression with its load capacity of 1,300 kg at maximum radius. It had a reach of 55 metres, and the bottom-slewing crane was able to cover the entire stage area and completed all

different sites. The installation, assembly and dismantling of these machines, as of all our GMA is very fast thanks in particular to the remote control and hydraulic kinematics," a spokesperson says.

"The footprint on site, the fact that these cranes operate with electric motors with frequency inverters not only limits and optimises electricity consumption but is also non-polluting compared to other construction equipment with a combustion engine," the Manitowoc spokesperson continues.

"Thanks to their jib length, these machines make it possible to serve a construction site within a large radius from a single fixed point and therefore does not damage the surroundings of the site."



Spierings says the integrated battery pack can mediate peaks in energy consumption

Working in difficult and novel sites is a common challenge for crane companies to overcome. Three Liebherr cranes, a self erecting 125 K, a mobile construction crane type MK 110 and a 150 EC-B 8 Litronic flat top crane (outside the scope of this article) demonstrated the versatility of projects



The contractors purposely left one archway exit unfinished so that they could slide the disassembled crane through once complete



POTAIN IN PENNSYLVANIA

In Pennsylvania, USA, a Potain tower crane appears encased inside the courtyard of the complex it is erecting. Contractor Quality Buildings is using the crane on this challenging and restricted site in downtown Allentown. The project's design and location in the city's historic district posed challenges to traditional stick-build contractors. Quality Buildings was selected as the subcontractor for framing, largely due to one equipment choice it factored into its estimate: a Potain Igo T 130 self-erecting tower crane. The crane is lifting frame wall bundles measuring 3.6 x 2.4 x 2.7 metres, four stories high, each weighing more than 1,360 kg.

"There really was no other piece of equipment that would work," says Elmer Zook, president at Quality Buildings. "With the tight jobsite environment and the limited laydown space for supplies, we erected the tower crane in the middle of the building. That allows us to service the entire construction site from a single location. We can offload supplies from trucks parked along the street and place at the exact location where it is needed."

"A conventional telehandler can work up to three storeys but, above that, it's super hard to manage that amount of height and weight. Another advantage with the Potain is that its broad reach means the material can be placed specifically where it needs to be on the floor, rather than parked on the edge then manually moved," Zook says. "The self erectors are also a much less costly solution than using a top slewing tower crane, especially for small to mid-size contractors."

While North America is still slow to adopt self erecting towers, the climate is shifting due to intensified labour shortages and project backlogs.

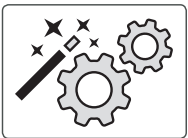
"A self erector is not for every single job. A contractor needs to understand how it will work best for their operations and how to factor rental or purchase costs into estimates," says Chad Jacobs, tower crane specialist at Potain dealer Stephenson Equipment. "It's a mindset shift for contractors." For example, instead of procuring rental equipment a week ahead of a project start, planning needs to start six months in advance at the bidding stage.

CSE SERIES SIMPLY NEW

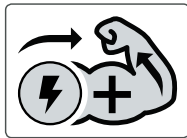


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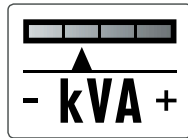
The fully electronic control with large 7" touch screen display provides precise control over crane operation for extremely precise load handling, improvement of crane performances and enhancing of safety levels.



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necessary lifts. LED jib lighting also helped with trouble-free working at night.

Next, in Frankfurt, Germany, precision handling was paramount when a Liebherr MK 110 was deployed at Germany's largest temporary open-air theatre, the Sommerbau.

CUBE CONUNDRUM

The five-axle mobile construction crane, belonging to the Eisele AG Crane & Engineering Group, provided support for a production of Dionysus City, which included several video inserts.

Technology provider SatisFy broadcast via a huge, 3.9 tonne LED cube. Even in windy conditions, the crane operator had to get the position exactly right so technicians could

take delivery of the cube quickly and safely.

The range of projects these cranes can work with is vast, and there are many options of cranes to choose from for this work, too. Electric mobile cranes are increasing in popularity, as the crane industry looks for ways to reduce its carbon footprint.

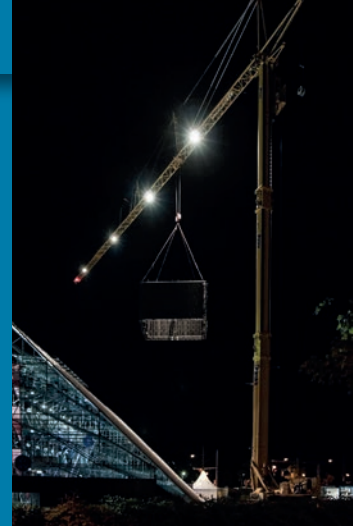
Sustainability isn't only suited for smaller models and little lifts, and electricity can be used to power enormous pieces of equipment. Netherlands-based Spierings Mobile Cranes offers a six axle heavy crane which is 66 metres high yet can be powered from a 16 amp socket. The company says it is the largest electric mobile crane in the world and provides a zero-emission lift. It has an eco mode and an integrated battery pack.

SUSTAINABLE FOLDING

Koos Spierings, CEO at Spierings, says, "Due to the integrated battery pack, peaks in energy consumption can be mediated. When the crane is not being operated for mere seconds, the hydraulic pumps will shut off reducing the energy consumption. Meanwhile the battery remains charging making it possible to operate on only a low power grid-connection most often found on sites."

In the case no grid connection is available, the crane can also work in a hybrid mode

The ergonomically designed cabin also offers the crane operator a high level of comfort, which was important in the opera application as each performance lasted ten hours



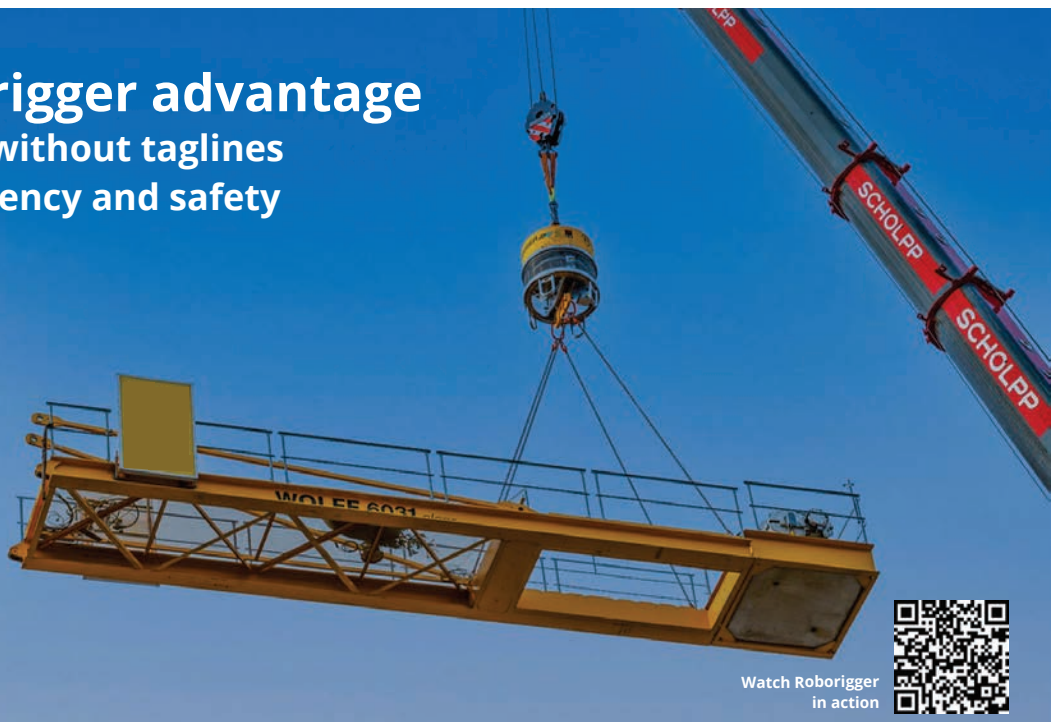
The crane was positioned directly on the ancient walls atop a six-metre gantry

where a small 3 cylinder EU Stage 5 diesel engine, together with the battery pack, will supply the crane with the required power.

Spierings says, "Lots of knowledge on hybrid technology and software was already present within our company making us able to act fast. Spierings is now offering three models that can work free of emissions." It has already delivered 70 eLift cranes to customers in Europe. It says demand is increasing and that in 2021, "every crane that left the factory was electric."

Self erecting tower cranes are terrific tools for a range of projects due to their custom configurations, smart systems and lifting capacities. The stage has been set and they are becoming the stars of the show. ■

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The 500 MW Fécamp offshore wind farm will consist of 71 wind turbines planted in the sea between 13 and 22 km from the coast of northwest France.

The €2 billion (US\$2.3 billion) wind farm will provide electricity for 770,000 people, or more than 60 per cent of the population in the local Seine-Maritime department.

It is under construction with the help of 16 large Potain luffing jib tower cranes supplied by global tower crane specialist NFT.

A total of 16 rail-mounted luffing jib tower cranes are key to the construction of 71 concrete gravity bases for an offshore wind farm in northern France.

ALEX DAHM reports

The Fécamp project is jointly owned through Éolien Maritime France SAS by EDF Renouvelables and Enbridge Inc, each with 35 per cent, while WPD Offshore has the remaining 30 %. Main contractor for the construction is Bouygues Travaux Publics.

Siemens Gamesa Renewable Energy (SGRE) will supply the wind turbines while Bouygues Construction with Saipem and Boskalis are responsible for the foundations. Chantiers de l'Atlantique, GE Grid Solutions and SDI will do the offshore substation.

SGRE has a new turbine factory in Le Havre in which to build the turbines. Manufacturing the turbines' reinforced concrete gravity foundations started last summer at the Grand Port Maritime site on the Quai de Bougainville in Le Havre. This is where all the tower cranes are working, alongside around 600 people.

The hollow concrete foundations are gravity bases being cast on land then floated out to the offshore wind farm site, sunk to the seabed and filled with aggregate before the turbine is mounted on top.

The bases are being built 16 at a time, each station with its own dedicated crane. Four

tracks each carry four rail mounted cranes which pick and carry under load.

TOP CHOICE

Tower cranes were chosen as the best choice for the job following a study of the various methods with their cycle times and also with the weights of the various packages to be lifted. The heaviest loads on this job are 24 tonnes. More typical lifts, however, for the bulk of the work, vary between 10 and 16 tonnes. These are for internal platforms, reinforcement cages, formwork and so on.

All 16 of the Potain MR 608 luffing jib tower cranes were supplied at the end of 2020 by NFT, one of the largest tower crane-owning companies in the world. The MR 608 lifts 32 tonnes with a 40 metre or shorter jib. In this application, however, they all had 50 metre jibs so capacity was 24 tonnes.

Abu Dhabi-based NFT already had 14 units of this model in its fleet. Of these, 12 were from 2018 and two were from 2019, but unused. Two more brand new upper parts were bought to complete the supply.

The 12 units had previously been used in Korea helping to build computer chip

Multi-power

Construction of the Fécamp offshore wind farm's gravity foundations in the port of Le Havre on the French coast

NFT supplied all 16 units of rail mounted Potain MR 608 luffing jib tower cranes for the Fécamp site



KEEPING THEM RUNNING

Another considerable investment for this project is the spare parts holding on site for the tower cranes which is worth more than €300,000 (\$340,000). NFT provided it to avoid long breakdowns on site and prevent interruptions to the project schedule. “We provide our own recommended list based on our site experience and expertise. We have rented them for many years so we have site feedback and know what parts are needed to avoid long breakdowns,” Al Zahlawi explained.

The parts are stored on site in a 40HC shipping container. Included are major components such as motors, inverters, hoist rope and luffing rope. More fast moving parts, for example, encoders and relays, are also kept in stock there.

Following removal of the tower cranes in June 2022, and then the completion of construction, project commissioning is scheduled for 2023 when the Fécamp wind farm will be handed over to the client.

More than 1,400 people are employed locally on the construction work. For the duration of its 25-year service life there will be around 100 full-time jobs based at the port of Fécamp to maintain the wind farm

factories for Samsung and LG.

“NFT also invested in six new 10 x 10 metre reinforced chassis and 11 brand new travelling systems, which was the majority of the investment for this job. The strong chassis and bogies were necessary to ensure the cranes could not only freestand at 57 metres in a very windy area, but also travel while lifting heavy loads,” explained Nawar Al Zahlawi, NFT business development director.

PRACTICALITIES

NFT supplied the MR 608s to Bouygues Materiel, which in turn is renting them to site. Belgium-headquartered tower crane specialist Uperio erected all the tower cranes and is maintaining them. It will also dismantle them – they are due to have finished and be off site by June 2022. Uperio engaged Mediaco, France’s largest mobile crane rental company, for the tower crane assembly.

In conjunction with the above partners NFT co-ordinated the shipping of cranes on an almost weekly basis from the UAE. Three-quarters of the cranes and components were delivered from there. Shipments from the Manitowoc Potain factories in Moulins and Charlieu, France, also had to reach the site at the appropriate time. This was to ensure timely delivery without overwhelming the Uperio team on site who had to unload the containers from UAE, unload trailers from France and Belgium, as well as assemble the cranes on the ground. Uperio invested two teams to work in parallel and to meet the site schedule. One of the teams was to unload while the other was on assembly and erection.

“Despite numerous obstacles – delayed shipping vessels, bad weather conditions and some other surprises – we managed to install all the cranes on schedule, if not ahead of schedule,” commented Al Zahlawi.



State of the

Global mobile crane sales did not have the most convincing rebound in 2021 but could start to do better as infrastructure spending picks up.

CHRIS SLEIGHT reports

In global terms, the market for mobile cranes has never been higher. In the region of 65,000 all terrain, lattice boom crawler, rough terrain and truck cranes were sold in 2021, a modest increase on 2020, but about a three-fold increase on 2016, the low point in the market worldwide.

As ever, the distorting effect of China has to be considered. Mobile crane sales in China last year were of the order of 56,000 machines – a record volume, mostly fairly small truck cranes, but including around 2,000 lattice boom crawlers. The market in China is believed to have passed its peak and is expected to fall away over the next two to four years to more sustainable, but still impressive, levels of around 30,000 units a year.

In the world excluding China, the market for mobile cranes generally varies between 8,000 and 10,500 machines a year, although in 2020 it was of course abnormally low at 7,500 machines sold.

The Covid pandemic of 2020 had a significant impact on global crane sales. In China, huge stimulus spending meant the market went to a new, unprecedented high. In the world excluding China, however, total crane sales fell by 24 per cent. This was a much steeper decline than was seen in the broader markets for earthmoving equipment, which was down 12 per cent in the world excluding China in 2020.

Although there was a rebound in 2021, the recovery of crane sales did not look as robust as that of the wider construction equipment markets, which surpassed the previous sales record set in 2018 despite struggling with component supply, shipping and logistics issues.

TOP CHOICE

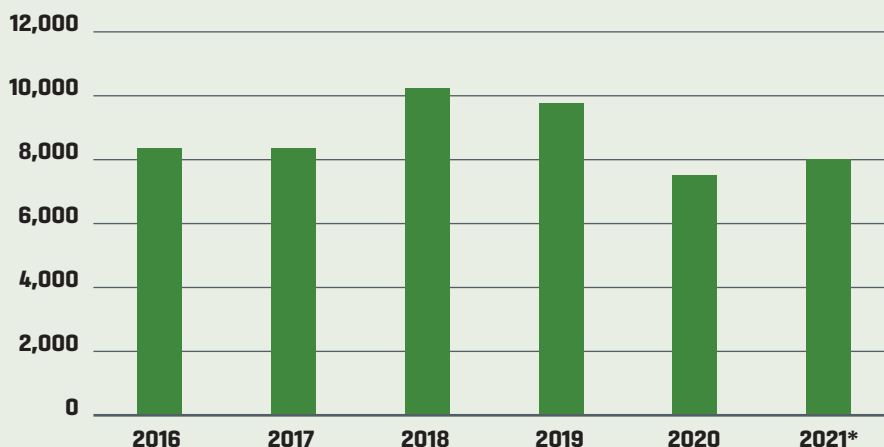
While there was an improvement in the mobile crane segment, it did not look as robust or as convincing. The main gauge of this as 2021 progressed were financial

ABOUT THE AUTHOR

CHRIS SLEIGHT is managing director at Off-Highway Research, a market research and forecasting company specialising in international construction equipment markets. Among its latest studies is *Global Mobile Crane Fleets*, a report produced in conjunction with *ICST*, analysing the composition, growth and development of the world's 100 largest crane-owning companies.



SALES OF MOBILE CRANES IN THE WORLD EXCLUDING CHINA



* – forecast

Mobile cranes = all terrain, lattice boom crawler, rough terrain and truck cranes

market

results from the few crane manufacturers which are stock market listed. These pointed to only about a 5-10 % increase in revenues compared to 2020, and an industry which was struggling to make much of a margin.

The fortunes of the different crane types depend to a certain extent on the dynamics in the markets where they are most popular. For example, although all terrain cranes are fairly universally popular, when China is excluded around half the global demand for these machines is in Europe. Similarly, around half of the world's rough terrain crane

demand is in Japan, although North America is also a significant market. Crawler and truck-mounted crane demand outside China tends to rest particularly on the dynamics in developing Asian markets, particularly southeast Asia.

Although crane sales looked slow to recover in 2021, this is not necessarily an indicator of a deep-seated problem. The boom in construction equipment sales in the second half of 2020 and throughout 2021 was largely compact machines (under 10 tonnes operating weight), which were linked

to strong residential construction markets. By their nature these are relatively high volume, low value, machines – they flatter the unit sales figures.

Sales of larger construction machines, including mobile cranes, can be expected to take longer to recover. In times of uncertainty and economic stress, it is the larger purchases which are the first to be cancelled. Demand, however, should recover and could become very strong as post-pandemic stimulus spending and infrastructure projects come on stream. ■



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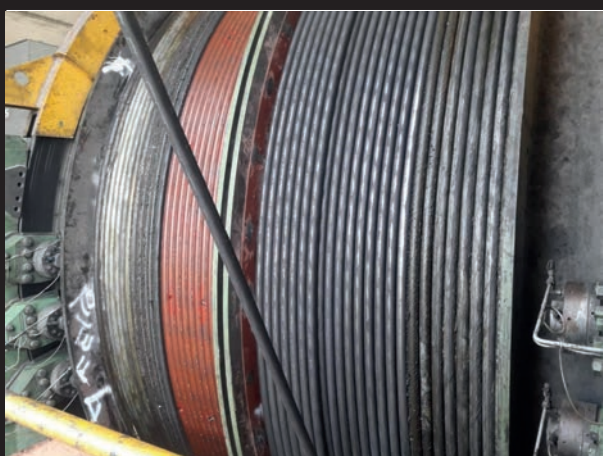
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ESTA to improve SPMT training

A Europe-wide system of training for operators of self-propelled modular transporter (SPMT) is under consideration by European transport and crane association ESTA.

Many of the biggest European heavy and abnormal transport companies have expressed support for the move, including Collett, Cometto, Fagioli, Mammoet, Scheuerle, Sarens, Technip, Siemens Gamesa, DNV and Wagenborg Nedlift.

Following informal talks with industry leaders, ESTA is setting up a special working group to agree the scope of the project. The working group will also discuss updating ESTA's 2016 SPMT Best Practice Guide to include expanded information on trailer maintenance. Concern has been

growing in the industry at the lack of recognised training qualifications and the need to improve safety standards as the SPMT market grows.

Ton Klijn, ESTA director, said, "It has been increasingly clear that SPMT training and operational standards need to be improved, both for reasons of project management efficiency as well as safety."

ESTA's best practice guide, first published in 2016, helps address the problem of trailers tipping over, even where the existing operating rules and stability calculations had been followed.

The first edition of the guide is available to download for free on ESTA's website: <https://estaeurope.eu/best-practice-guide-for-self-propelled-modular-transporters-spm/> ■



The new training scheme would be a similar principle to the European Crane Operators Licence scheme

Energy work for Allelys



More than 20 loads were moved and stored by Allelys for a new waste to energy plant in the UK

UK transport specialist Allelys supported an energy from waste project by offloading 23 items from a vessel, placing them into temporary storage and then transporting them to site.

The units, which arrived into Immingham port in the North East of England were stooled off ready for self-loading. All 23 loads, including superheaters and a drum, were received over a two-day period using three heavy haulage trucks and modular trailers. The pieces were up to 19.75 metres long and almost all of them were more than 4 metres wide, with the largest being 4.95 metres.

Once the site was ready for the units to be delivered, Allelys was required to transport them in pairs, with a maximum of two deliveries a day because of site constraints. The team also had to work to specific time

slots for arrival on site in Loughborough. The majority of the units were transported using a seven axle modular trailer with a neck instead of a drawbar. The largest and heaviest piece, however – the drum – required a custom 5 axle beam trailer to be built in-house, due to it measuring 19.75 metres long and weighing 80 tonnes. Allelys provided all escort services for the project.

"This was an interesting project for the team to work on due to the agility and flexibility it required," said Jamie Woodland, assistant transport manager at Allelys. "The vessel berthing date was unstable due to weather conditions, so it was essential to provide our customer with a flexible service to meet the project milestones. Additional equipment, including an extra truck and trailer were also required at short notice." ■

Mammoet to move record cargo

International heavy lift and transport specialist Mammoet will transport an 1,800 tonne reactor to Orlen Lietuva's refinery facility in the north west of Lithuania.

Planned to take place in mid-2023, the 100 metre long, 6.5 metre wide and 10 metre tall cargo will be transported 150 kilometres on public roads from the Port of Klaipėda to the Mažeikiai Refinery. It will be the biggest cargo to be transported in Lithuania.

At the port it will be lifted off the vessel and onto 88 axle lines of conventional trailers. Mammoet will have to consider how to navigate across bridges and culverts and be able to manoeuvre the cargo around tight corners.

The two companies have worked together before, including on a heavy transport project along a similar route in 2008. Mammoet also undertook a study in 2019 to evaluate potential routes for large cargo, which led to the company being offered this transport job. Mammoet intends this job to serve as proof of capability for larger jobs in the Baltics region.

Largest cargo in Lithuanian history will be transported to a refinery



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ICST asked crane rental companies to complete its annual rental confidence survey to identify the trends taking place post pandemic, and the results are encouraging. **NIAMH MARRIOTT** reports



Bouncing back

Despite the huge upheaval and disruption caused by the pandemic, the industry seems to have been bouncing back as quickly as it was disturbed in 2020.

Following the data can always lead to the right conclusions and we would like to thank every respondent who took part in our digital collation of information in this year's survey. It helps us to establish a bigger picture of what's going on, and in turn can help you the reader benchmark your business or identify key players and trends set to emerge on top throughout the year.

GLOBAL RESPONSE

The survey data was collected from a range of businesses and respondents from around the world, and so it builds a global picture of the industry in general, rather than just a specific region or country. In terms of a geographical break down, the majority of our respondents operate in North America (46 per cent) but we also have large reporting from Europe (26 per cent) as well as information from the Middle East and from Asian countries.

We are pleased to include reporting from African countries and Australasia, too. It would be helpful to bear in mind this global split when reviewing the results, to ensure a clear perspective, and to be aware of any bias that might have been formed.

CONDITIONS IMPROVING?

A large portion of the industry, around a third of respondents (43.9 per cent), believe that business conditions are improving post pandemic, and 31.7 per cent think that they are finally stable. A smaller portion, 24.4 per cent,

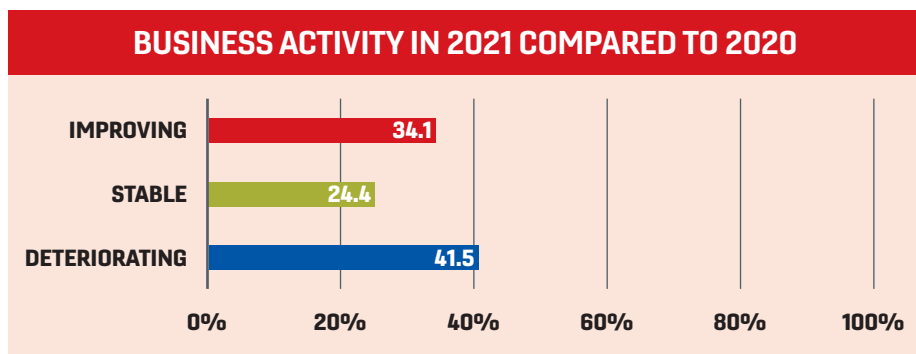
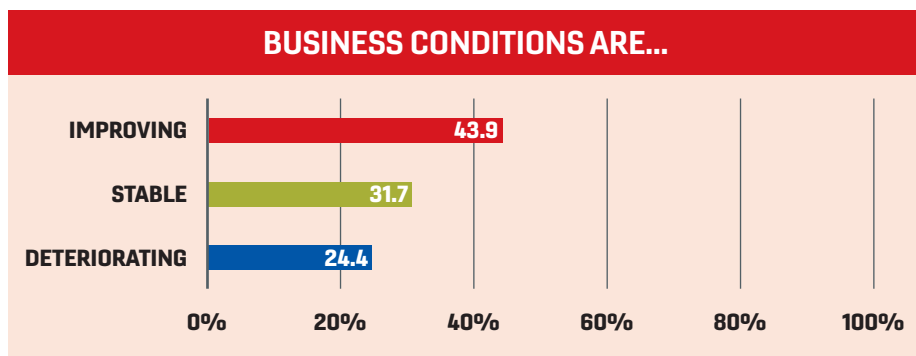
think business conditions are deteriorating.

This could be seen as encouraging, especially when compared to last year's results. At the start of 2021, though 41 per cent of respondents indicated they felt business conditions were currently stable and 31 per cent said they were improving, 28 per cent believed conditions were declining, which was a higher figure than in 2020. It's good to see this reduced slightly this year. Of course, it would be better if conditions were improving across the board, but a sense of stability is just what is needed after such a turbulent time.

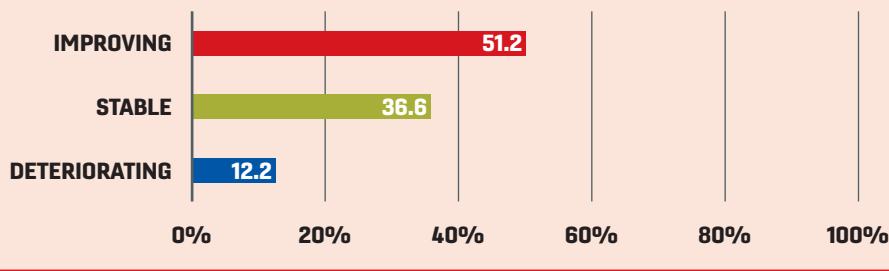
BUSINESS ACTIVITY

Comparison year-on-year identifies both positive and negative changes. When looking at business activity in 2021 in comparison to 2020, most respondents said that they saw a deterioration. In fact, 41.5 per cent believed business activity was reduced. This could be for a variety of factors but perhaps the virtual changes forced upon businesses and the majority of meetings unable to happen in person could be to blame.

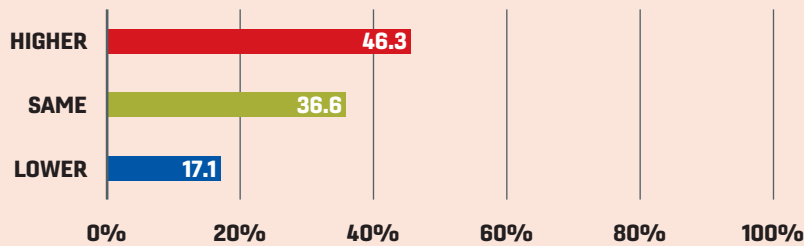
After all, though the industry has adapted as well as possible to virtual events, video conference calls and more



EXPECTATIONS FOR BUSINESS IN 2022 COMPARED TO 2021



LEVEL OF CAPITAL EXPENDITURE ON FLEETS NEXT YEAR (2022) COMPARED TO THIS YEAR



email correspondence than in-person conversations, it is a drastic change. The physical handshake to complete a deal feels so far removed from our current way of working. Perhaps a return to live events and in-person meetings this year may improve activity over the coming 12 months.

Our optimism seems to be reflected in the results from the survey. When looking ahead for the coming year, most respondents have expectations that business levels will improve in the next 12 months. More than half of respondents (51.2 per cent) believe levels will improve, 36.6 per cent believe business levels will remain stable, and only 12.2 per cent think that they will deteriorate further. Last year, more than 15 per cent thought levels would worsen, so perhaps it's encouraging to see this number decrease year-on-year as we finally start to emerge past the pandemic.

CAPITAL EXPENDITURE

In terms of spending, nearly half of respondents will be making bigger investments and will have a higher capital expenditure on their fleets in 2022 in comparison to 2021. The responses indicated that 46.3 per cent will have a higher expenditure and 36.6 per cent have the same amount as this year. The ways in which companies expand and improve their fleets are varied, and ongoing maintenance and modernisation are a large part of this. There are still some cautious and more modest crane rental companies who intend to have lower capital expenditure, with 17.1 per cent intending to streamline and have a lower capital expenditure this year.

EMPLOYEE CHANGES

This confidence shown in machinery investment isn't quite as strong when it comes to the employment market, although it remains significantly positive, with 47.5 per cent of companies stating they will increase the number of employees. Equally encouraging is that 40 per cent intend to make no changes and retain all existing staff.

Around 12.5 per cent of respondents, however, did indicate they will reduce the number of employees, demonstrating the pressure on staffing due to the pandemic. It should be considered that in some cases it is likely the reduction will be involuntary and as a result of not being able to find enough suitable people.

The reduction is a smaller number than last year, though, where 16 per cent said that they expected their company to reduce employee numbers. Dramatic staff changes and unfortunate redundancies have been seen not only in the crane sector but across the majority of industries and this, combined with the Great Resignation of 2021, is bound to

bring about changes to staff numbers.

FUTURE FORECASTS

In terms of the forecasts for change in rental rates over the next 12 months, it's a slightly different story. For 50 tonne capacity wheeled mobile cranes, 38 per cent of respondents believed the rates would be higher and more than half (51 per cent) thought they would stay the same. Only 11 per cent thought they would be lower. For the 100 tonne capacity class it was a similar split with 40 per cent expecting them to be higher, 48 per cent expecting no change and 12 per cent forecasting a lower average rates.

When it comes to crawler cranes, the survey demonstrated that most expected it to stay the same, with 55 per cent expecting no change in the 70 tonne capacity, and 50 per cent expecting the rates to remain the same in the 150 tonne class. Most respondents thought tower crane rental rates would increase, with 50 per cent of companies believing the 100 tonne-metre class rental rates would increase and 50 per cent of companies expecting an increase in the 300 tonne-metre class of tower cranes.

When it comes to fleet time utilisation, most of our respondents – a whopping 63 per cent of our survey – indicated they thought this would remain stable, 22 per cent thought it would improve, and 15 per cent said they expect a reduction.

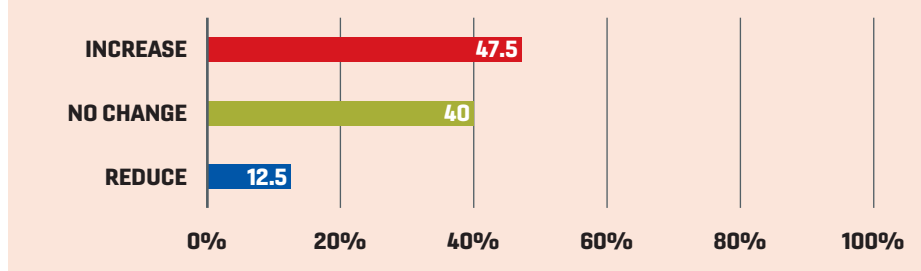
GLOBAL OPINION

As this is a global survey, there were, as ever, some varied opinions from many different places around the world. While generalised, they do offer a taste of what rental crane companies are thinking about the state of the industry.

In South America, one enthusiastic response was, "Brazil is back in growth!" while in South Africa the experience of one respondent was that "the construction industry is very flat here and we are waiting for the turnaround."

In Germany, one respondent commented that there "is still a lot of work but competition is growing." From Italy, "The crane

NUMBER OF EMPLOYEES EXPECTED IN THE NEXT YEAR



rental market in North Italy is increasing. The prices are still lower than the rest of Europe," said an Italian crane rental company.

A European crane rental company lyrically illustrated its experience, "Rates are dropping like rain on a stormy night." Another European respondent commented on rental rates, "We are based in Slovakia and Czech Republic. There are many rental companies here in

such a little market and that is lowering prices a lot."

It seems to be a similar story in India where a respondent reported, "Crane rentals are getting very competitive and it's difficult to survive."

Rates are also being affected in the UK, where one view was that "the rates for mobile and crawler cranes are taking a massive

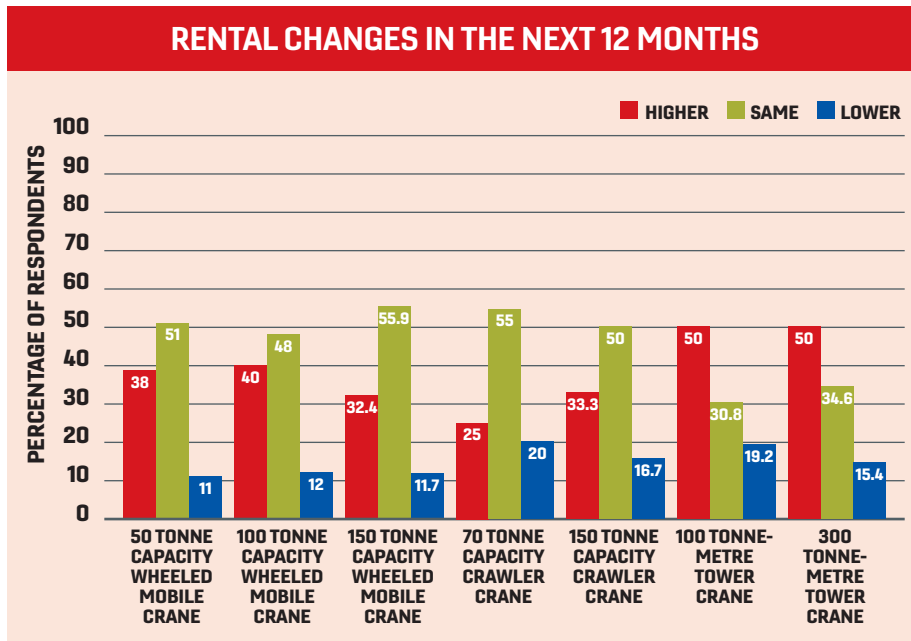
plunge since the start of the pandemic."

In the USA, it seems a mixed bag of opinions but the topic is also very much centred around rental rates. One company said, "rates are decreasing by the minute while expenses are increasing. There are a lot of payment issues." Another US respondent, however, said, "Things are getting better and 2022 should be good."

A different USA-based crane company said there is an "increase in infrastructure projects and a decrease in general construction."

In Australia a responder wrote that "empty hook speeds are more critical than ever and demand on electrically powered cranes have increased. There is also an increasing request to retro fit noise control on diesel cranes."

The statistics offered from this survey may not fully reflect the state of the market everywhere but they do offer insight and the thoughts of crane rental companies, looking back over the last year and looking forward over the next 12 months. We hope that it showcases some strengths and stability, and the sheer resilience of the crane rental market during an incredibly chaotic and turbulent time. Bright blue skies may be ahead on the horizon, and as ever cranes will dominate the skyline.



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Right to repair

Repairing and refurbishing a crane can extend its working life by up to twenty years and it can end up saving a huge amount of money, time and planning for new equipment. **NIAMH MARRIOTT** reports

Wheco completely remanufactured a 300 tonne lattice crane from the ground up

When starting to look at options for a specific crane and what to do with it once it becomes aged, Dave Wood, director at Washington state, USA-based provider of heavy-equipment repair and restoration services Wheco Worldwide Services, recommends looking at whether the equipment needs to be rebuilt, remanufactured or refurbished.

"We always start the process by having discussions with the customer on what they are looking for at the end of the day," he says.

"Rebuild can be repairing what is broken or worn out currently. Remanufacture is restoring the crane to like-new condition from the ground up. Each and every part and component is brought back to like-new. We can upgrade items such as engines and electronics. Refurbishment is mainly a clean-up of what you have. It does not go as deep as a remanufacture. We may not replace the wiring, only freshen it up and repair or replace what is worn or damaged."

WEAR AND TEAR

Wood explains, "Typically, this is where we sit down with a customer and prepare a list of what needs to be done and build on that. If the machine has been well maintained and the customer has good records, we may not touch a lot of the components. Things like the engine or slewing bearings may have been replaced recently and still have a lot of hours left in them."



Replacing the engine in this Manitowoc 888 crawler allowed it to be brought up to current exhaust emission specifications

Once you have decided what needs to be repaired, remanufactured or refurbished, you can extend a crane's working life by 15 – 20 years, which is a huge feat, says Wood. Wheco has been in the crane and heavy equipment

rehabilitation business for more than 40 years and, during this time, has seen the interest in repairing existing equipment increase.

Though it sounds very impressive, a twenty-year life extension might not always be required, and in fact, "some customers are only looking to get another three to five years or just through the next job," Wood says. "That is why we try and tailor each project to fit the customer's needs. It comes down to economics and return on investment (ROI)."

Wood explains, "We recently completed a 2 million dollar remanufacture on a crane from the 1980s that will give the customer 20 years if properly maintained. We also recently did a duty cycle machine that we could give another 10 years to it for half the cost of a new unit. The newer units did not offer any added production benefits so it made sense to the customer – again ROI."

IN-HOUSE SERVICES

Many of the larger crane manufacturers have their own in-house repair and refurbishment services. Wisconsin, USA-based crane manufacturer Manitowoc has run its EnCore refurbishment programme since 2011 and has global repair hubs. The processes offered include everything from rebuilding cabs or boom cylinders to updating all systems and renewing electrical harnesses, instruments, drive-lines, hydraulic components and hoses. A »



Boom sections can be repaired but it must be done by companies who have the procedures and the experience to carry out this kind of specialized work, says Avezaat

Manitowoc spokesperson says, "Whether your crane requires a repair due to damage caused by an accident, or needs an end of service life rebuild, this service is a viable option."

It is not always economically viable to repair a crane, says Wood. "Sometimes it makes more sense to sell the machine and put that money along with what would have been spent in a refurbishment or remanufacture toward a newer, lower hour machine."

"It is different for each customer. Some may want to only get a few more months or years out of the machine."

SUSTAINABLE TO REFURB

Peter van Oostrom, global projects assets director at Mammoet, says it can be more economical to keep older equipment running, depending on the specific equipment. It's also more sustainable, he argues.

"Mammoet has a large equipment fleet and a very broad spread of different manufacturers, types, and models. A large part of the fleet is easily replaceable – for this equipment we have a standard replacement strategy that we follow."

"Other areas of the fleet are not so easy to replace, as these are very specific and unique pieces of equipment, where we cannot easily find a replacement in the market. Looking at our biggest cranes, it can be sustainable to continue with them instead of replacing them, as the production of materials for a new crane definitely has an impact on sustainability and carbon footprint."

Refurbishment is not a core business for Mammoet, but it can be the best option sometimes. "If we decide to refurbish equipment, this is always done in co-operation with the manufacturer, as they have the knowledge of the design of the equipment and also need to give advice on what to do," says van Oostrom. "The advantage to working with the manufacturer is that they



Deciding whether to repair and refurbish depends on the intensity and amount of use the equipment gets in the markets it is designed for

are able to certify the refurbishment, which gives us confidence and confirmation that all works were done according to the correct procedures and guidelines," he says.

Some crane manufacturers, including Mammoet, do resell their used equipment, and this practice can extend the working life of a crane. "We offer equipment for sale on the Mammoet Used Equipment website (usedequipment.mammoet.com)," says van Oostrom. "The advantage of selling ourselves is that we have all details and insight into what the equipment has done, and we can give the best information and support to potential buyers."

MAINTENANCE IS KEY

Continuing maintenance is key to avoiding costly remanufactures and repair work, says Ruud Schreijer, CEO at crane boom repair specialist Rusch Crane Services.

"Have your cranes maintained regularly and make use of high-quality experts," he

says. "It certainly pays off in terms of a longer service life, less downtime and less chance of unexpected expenses."

The company has been operating since 1992, repairing and inspecting all kinds of cranes. Currently the company is working on two YME cranes that were transported from Norway to its workshop in the Netherlands. "Right now we are inspecting and repairing these big guys to get them ready for sale," says Schreijer.

"Another project we are proud of is the repair of a 700 tonne crawler crane boom head. It is quite common for manufacturers to conclude that a crane or part of a crane is 'end-of-life'. This does not always mean 'impossible to repair'."

He even believes that older cranes are most cost efficient to repair rather than replace. "In some cases, repair is more cost-effective than replacement, especially with cranes older than five years. With the 700 tonner, we used certified materials as strong as the original, and our own certified weld techniques to repair the boom head. We also did magnetic testing of the welds and tests on the construction itself."

TRAINED TECHNICIANS

Avezaat Cranes is an independent company specializing in mobile crane and crawler crane boom and steel structure repair. The company has been operating since 1939 and can work on the smallest repairs, such as replacing a few lacings on site, all the way up to a complete repair of a tipped over crane, which actually is more common than you might think, says director Bert Avezaat.

He says its important to have properly trained technicians on the repair works. "There are many parts of a mobile crane which can be appointed as critical, so it is very important that the works are carried out by certified and experienced people."

"What we still see happening sometimes is that due to using a bad repair procedure or using the wrong materials for repairing boom sections things go terribly wrong. When carrying out a bad repair it will lead, sooner or later, to failure of the crane and it is terrible to see how some people do not take crane boom repairs seriously. Boom sections and-or crane structures can be repaired but it must be done by companies who have the procedures and the experience for this specialized work."

As the global crane industry continues to strive to reduce costs and improve sustainability, the need for trained repair technicians is only likely to increase. Sustainability is at the forefront of decisions currently, and if it will cost less to remanufacture than replace, then why not? ■



Investment in equipment should give a return, otherwise it doesn't make sense, says Mammoet



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Cybersecurity from the top

As construction and transport companies lean into more hi-tech, digital internal processes and systems, the threat of a cyber breach, especially from third-party relationships and software supply chains, remains ever-present.

As an organisation's system interdependencies grow more complex and digital connections multiply, so too does the risk of said breach. Attackers are on the hunt for vulnerabilities in networks all the time, and we need look no further than 2021, which was one of the worst years on record, for cybersecurity.

One question that has repeatedly emerged asks: are businesses simply becoming too complex to secure? While the answer to that question remains fluid both now and in the future, one possible solution – albeit not the only one – has also emerged, and that involves simplification.

While not all technology can be simplified, leaders play a crucial role in identifying and working with their team(s) to implement simplification as consciously and deliberately as possible whenever the opportunity is available.

COMPLEX CONCERNS

So then, expanding on these roles, recent studies have found that business leaders often think they're more involved, and-or in support of, setting and achieving cyber goals than they actually are. In fact, surveys often reveal that CEOs are likely to start getting more intimately involved in cyber and privacy issues only after a compliance review, a metrics report or a breach has occurred.

Given that leaders are likely involved in cultivating company culture, then his or her absence in regards to cybersecurity (until there's a problem) can create a disconnect or even a sense of imbalance. Thus, within any company the CEO, together with the board, must maintain understanding of the risks and assume ultimate accountability and responsibility for cybersecurity activities and personnel.

Again, however, many within your organisation may speculate: are we too complex to secure? Understandably, within an overly complex organisation, it's easy for the left hand not to know what the right hand is doing – and the consequences for cybersecurity and privacy can be dire. In fact, 75 per cent of c-suite leaders believe their companies are too complex.

DARE TO SUBTRACT

Obviously, complexity isn't a bad thing, in and of itself. As a business grows, it's often a normal by-product – and more people, services and products almost always require more technology. But the associated risks can easily go unnoticed or ignored, until an attack occurs.

To be fair, simplifying cybersecurity can be challenging, but certainly not impossible. One thing to consider is the cloud. Moving to the cloud can help simplify business processes and IT architecture, provide flexibility and accelerate innovation. Done right, cloud transformations can be secure, efficient and successful – and most leaders around the world consider it a top security investment.

In addition, deploying two-factor authentication and putting your remote desktop protocol (RDP) behind the firewall – can vastly reduce the risks from phishing, which remains a popular tactic, by itself, and in tandem with malware and ransomware attacks.

That said, include the CISO (chief information security officer) and security teams early in cloud migration and adoption, mergers and acquisitions and other organisational initiatives. That way, every executive at the helm of a major business initiative will be able to readily answer the cyber-plan question.

Finally, dare to subtract. Left on their own, technology and data tend to multiply, divide and conquer efficiency and security. Whittle down excess with security goals in mind: assess your data stores and eliminate everything you don't need now; move your apps into the cloud; and consolidate, liquidate and automate where you can. ■

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Tower tech

Technology in the tower crane sector presents a world of opportunity, reports **MIKE CHALMERS** from the recent International Tower Cranes conference in France

As it has done throughout the construction and transport industries around the world, technology continues to work its way into the systems and processes of just about every sub-industry therein – with tower cranes emerging as a hot topic of late.

Technology was a key theme late last year at the International Tower Cranes Conference (ITC), of which SC&RA was an event partner, held in Nice, France. One particular round-table discussion – Automation and remote control of tower cranes – highlighted the level of both sophistication and enthusiasm surging through this particular space.

Two members of the four-person discussion were Aviv Carmel, joint founder and general manager, Skyline Cranes and Technologies in Israel, and CEO at Skyline Cockpit; and Jean-Charles Delplace, CEO at SMIE in France, and CEO, Smart Jobsite. Both men represent the two-sided coin that inevitably finds itself being flipped within technology conversations in construction the world over – i.e., while they both are engaged in highly technological and innovative iterations on tower crane operation, they don't necessarily agree on the best path forward. In this instance, a debate emerged over remote operation of tower cranes.

PART OF THE JOURNEY

With 32 years of personal experience working with tower cranes, Carmel explained that Skyline is determined to close the gap between the needs and challenges inherent within the industry. "We have more than two hundred towers on rental, and service about forty per cent of the local market – we're always looking above and beyond to the next level of tower cranes."

Carmel believes that next level sits a couple hundred feet above the ground. "The tower crane hasn't had any significant changes in recent decades," he pointed out. "Other than structural design reviews, it has

Jean-Charle Delplace is CEO at SMIE and Smart Jobsite



basically remained a construction site lifting machine with an operator up there. That said, there are many built-in problems and limitations that everyone takes as a necessary evil, but new technological capabilities allow us to change our perception."

Carmel ultimately asked himself, if everything was possible, what would he like to change about tower cranes. "And the answer was: the operator should not be up there, or on site at all," he confirmed. "The

crane should operate via C.A.A.S. (crane as a scanner). We're up there using technology – we see everything into the crane and out to the site. We should operate it as a tower control centre, harvesting all the information. Data is the new gold – acquired, processed and delivered to the right customers."

The result of Carmel's thinking led to Skyline Cockpit – a groundbreaking technology that enables operators to control cranes remotely from anywhere, "...significantly enhancing the crane's efficiency and productivity, while creating a friendly, safe environment for the operators."

It should be highlighted that Skyline Cockpit has successfully been in operation for over a year on projects that Skyline is affiliated with. To that end, Skyline had an operator onsite at ITC working a job back in Israel in real-time, seemingly without issue.

"It's about efficiency, safety, cost and value," emphasised Carmel. "And the future is now; we're already here. We're operating with a stable product off-site, including the ability to operate more than one crane from the same cockpit with a single operator, switching from one to another. R&D is operating and monitoring different cranes at different sites in different cities."

It's all part of a journey, maintained Carmel, beneath the banner of "change" – whereby in the short term, those who get on board early (DEMs, regulators, rental companies, etc.) and adopt the technology will have the advantage. "And long-term," he added, "it's the evolution of the whole industry – understanding that change is actually part of the journey."



Aviv Carmel, joint founder and general manager at Skyline Cranes and Technologies in Israel and CEO at Skyline Cockpit



The International Tower Cranes (ITC) conference in Nice, France on 1 and 2 December 2021



Skyline's equipment set up at the ITC in France from where a tower crane in Israel was controlled

from developing it any further. It simply feels too disconnected – if you strike someone, it's not quite the same. It's a loss of connection from the jobsite because you're not there in-person. So that's why I said on the panel that we thought it was extremely dangerous. We simply believe it creates more problems than it solves."

THE WAY FORWARD

Conversely, Delplace believes that self-driving (automated) cranes have a huge future within the industry. "While we know there will be enormous legal hurdles to get over in the years to come, we are one hundred percent in support of self-driving cranes," he said. "It's the way forward from where we stand. Indeed, while we believe the technology is there, in our view, construction is not compatible with self-driving at this moment. That said, on so many current jobsites, people are late, material is lost, logistical components are compromised – inefficiencies are everywhere. We know that industry is going to have to change, however long it takes – and not just cranes, but construction methods, modalities. But ultimately, the crane will be much more than a lifting device, and self-driving will be a key piece of the process."

To that point, Carmel agreed. "This is not science fiction; though the journey will take a while and require many small steps. We're taking the industry out of its comfort zone, but someone has to lead – and eventually, the rest will follow. Any change manifests resistance but, in this case, the change is already happening. I would suggest the whole industry should change their point of view, look wider and deeper. We are blessed to be in a time of such change and opportunity." ■

JOBSITE CONNECTION

But not everyone is as keen as Carmel and some of his industry colleagues on remote tower crane operation – evidenced by Delplace's direct criticism of it during the round-table discussion.

Which isn't to say that Delplace, and his companies, aren't directly involved in the technological evolution of the industry. Remote operation, however, isn't a pursuit that he sees as worthwhile.

"We are certainly devoting technology to the future of this industry," he stressed. "We see a great future in the construction industry – and in my personal view, as much as we [the industry] are late with tech, I truly believe that construction will go through a huge mutation in the next few years and beyond. But we don't see remote operation as a safe, efficient part of that future."

Delplace elaborated, "We [SMIE and Smart Jobsite] are developing a lot of things – we've developed a crane simulator that everyone saw onsite at the conference," he noted. "It's great for many reasons, but one is that it's a platform to make the experiment between remote operation and self-driving."

For context, Delplace and SMIE are leaning heavily into self-driving, versus remote operation. "We've been very impressed with it, and it can be used tomorrow morning," he indicated. "We

started with the same sort of feeling that it would happen over a long period of time, but we've changed our minds – there could be integration quite soon actually.

"But from those experiments, we've also experimented heavily with remote operation, and we saw quite a few issues. First, it's not sorting anything out – it just moves the operator away from being on top of a crane. And from where we stand, that adds more complexity, it doesn't reduce costs and it actually complicates the idea of the crane operator," Delplace said.

Leveraging both the increased cost, safety concerns and technical complexity that Delplace and SMIE discovered during two comprehensive trials, he also landed on another belief. "It's hard to describe, but when you try the remote driving, you feel like you're in a video game," he explained. "Yes, it's brilliant – you can add in the crane movement and sound, etc., but we found that when you step out of the crane, you lose the sense of danger associated with the job itself. And that's the main thing that has stopped us

A visit to a tower crane site in Monaco was part of the 2021 ITC conference



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RFID tags track lifting gear

Radio-frequency identification (RFID) tags have been used to track all of UK-based Rope and Sling Specialists Ltd.'s (RSS) equipment at a seven-site project in London.

RSS has stocked lifting and rigging equipment stores at each of the locations and every shackle, hook, sling, and harness is fitted with a tag that can be read by a smart device to capture inspection and location details on an app.

Motion Software's Kinetic system is a third-generation package, and the tags are designed to work in harsh environments with dirt, dust and moisture.

Tony Teeder, regional account director for the Midlands, London and South at RSS, said, "By the requirements of LOLER [Lifting Operations and Lifting Equipment Regulations 1998], many sites used to only inspect and document equipment periodically – every



RFID tags ensure equipment is stored, used and inspected according to LOLER requirements

six months, for example. However, by using RFID technology, sites are driving this down to monthly, weekly, and daily tracking procedures."

He continued, "The system shrinks the time from inspection to final report, while automatic alerts and updates make sure you never miss an inspection. All equipment can be easily referenced against relevant legislation, and inspection renewals are tracked. Reports can be built with a unique app builder."

■ For more information see: www.ropeandsling.co.uk



The support centres minimise floor obstructions and offer an easier installation

HYBRID CRANE FOR DYNAMIC WORKING

Gorbel has introduced its hybrid workstation crane which is an extension of its enclosed track work station crane. The company said hybrid cranes combine the strength and durability of patented track with the lightweight advantages of aluminium enclosed track bridges.

This allows for greater installation flexibility and multiple higher capacity bridges to be used on a single crane, with no buffers. This means one crane can support multiple work stations or an entire work process without losing usable crane coverage area to buffers.

There is also a manual push-pull system which allows for easy manual movement. A custom motorised solution is also available.

■ For more information see: www.gorbel.com

Joystick simplifies customisation

USA-based Rafi has improved its Joyscape joysticks designed for heavy-duty, off-road and special-purpose vehicles and equipment. The control components can be customised for harsh environments.

Rafi can integrate buttons, rocker switches, thumb joysticks and rotary encoders into its joysticks, and employ wear-free non-contact electronic 3D Hall sensors for motion detection which can improve safety. The joysticks have options for CAN and

CANopen, analogue or USB interfaces.

Optional extras include illuminated handles for night work and easy-clean folding bellows for hygienically sensitive areas.

The heavy-duty joysticks are built for 5 million operating cycles and can work in temperatures between -40 and +85 °C. They also offer shock resistance and have an impact strength of 110 Newton metres.

■ For more information see: www.rafi-group.com/en/joyscape



Due to its high centre of rotation and large 20 degree tilt angle, the joystick only needs a 65 millimetre wide mounting hole

TECHNOLOGY REDUCES ENGINE MAINTENANCE

Jacobs Vehicle Systems' Fulcrum Bridge offers mobile crane owners reduced servicing, lower running cost, less downtime and promises compatibility with compression type engine brakes. It allows these brakes to work with engines that have hydraulic lash adjusters (HLAs) for automatic valvetrain adjustment.

HLAs are used in petrol and light-duty diesel engines but not in heavy-duty engines which have traditional valvetrains requiring periodic maintenance to check and adjust the valve clearances or lash adjustment. Fulcrum Bridge changes that with its valve bridge which prevents the hydraulic lash adjusters overextending in engine brake mode.

Fulcrum Bridge actuates the braking valve slightly off its centreline and diverts a proportion of the braking to the HLA via a linkage mechanism. The brake valve tip is used as a fulcrum point to impart an upward force which keeps the HLA in its optimal position.

■ For more information see:

www.jacobsvehiclesystems.com

Jacobs Vehicle Systems' Fulcrum Bridge



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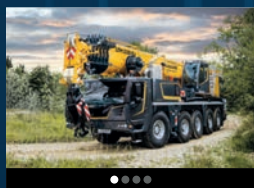


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EVENTS DIARY

2022

SC&RA SPECIALIZED TRANSPORTATION SYMPOSIUM

22 to 24 February 2022

Glendale, Arizona, USA

www.scranet.org

ESTA AWARDS DINNER

17 March 2022

Noordwijk, Netherlands

www.estaeurope.eu/events

LIFTEX BAHRAIN

21 and 22 March 2022

Bahrain, UAE

www.liftex.org

CRANES AND TRANSPORT MIDDLE EAST

22 and 23 March 2022

Dubai, UAE

www.khl-catme.com

SC&RA ANNUAL CONFERENCE

25 to 29 April 2022

Washington, DC, USA

www.scranet.org

INTERMAT INDIA

27 to 29 April 2022

Mumbai, India

www.india.intermatconstruction.com

TOWER CRANES NORTH AMERICA

20 and 21 June 2022

Biscayne Bay, Miami, USA

www.khl-tcna.com

HILLHEAD 2022

21 to 23 June 2022

Buxton, UK

www.hillhead.com

BAUMA 2022

24 to 30 October 2022

Munich, Germany

www.bauma.de

SAMOTER

March 2023

(Postponed from March 2021)

Verona, Italy

www.samoter.com

■ Please send picture of the month entries and all other back page-related information to *International Cranes and Specialized Transport*, KHL Group, Southfields, Southview Road, Wadhurst, East Sussex TN5 6TP, United Kingdom, or by email to alex.dahm@khl.com. Entries for Picture of the month should include: the month and year taken, the place, type of crane, owner and project, plus any other relevant information.



Night time repair work taking place on rail tracks in Kent, UK, after dangerous subsidence threatened safety for rail vehicles and passengers

PICTURE OF THE MONTH



OBITUARY

JEAN-LOUIS OLIVIER 1952 – 2022

ICST regrets to report the death of Jean-Louis Olivier, founder of crane collision avoidance and technology company SMIE based in France.

Olivier was a pioneer and innovator, constantly pushing throughout his life for new things to improve the crane industry. He was one of the first to put an anemometer on a crane and he invented zoning and anti-collision.

In 1975 Olivier started SMIE and began working on collision avoidance systems for cranes, launching its first for tower cranes in 1985. Thousands of the company's systems have since been sold worldwide.

In November 2019 he handed over SMIE to Jean-Charles Delplace to whom Olivier was a father-like figure. Indeed, Olivier engendered a similarly familial feeling throughout the SMIE team, generous in his personal encouragement and career development.

Although officially retired, Olivier maintained his involvement, remaining on the advisory board. He was still excited about getting new products to market and changing the industry for the better, Delplace said.

Jean-Louis Olivier died on the night of 8 January 2022 at 69 after a short and unexpected illness. ICST extends its deepest sympathies to his family, friends and colleagues.



PEOPLE NEWS

■ **DEAN BARLEY** will succeed **INGO SCHILLER**



as president of Tadano America Corporation. Barley was formerly vice president of customer service and general manager for Latin America sales. Schiller has been promoted to the role of chief marketing officer of Tadano, Ltd, and will now be responsible for all global marketing activities for the Tadano group of companies. Schiller will also remain involved with the operations in the Pan-American region as a director of the USA entity that holds both Tadano America Corp. and Tadano Mantis Corp. Barley has more than 30 years of experience in sales, aftermarket, engineering and manufacturing. He started his career as a service technician and engineer in the United Kingdom, and joined Terex in 1996.



■ **TIM GERHARDT** has joined Liebherr USA as one of the new managing directors for US operations. he shares executive responsibilities with

Kai Friedrich who is also divisional director for the construction equipment product segment in Newport News, Virginia. Gerhardt has more than 20 years' experience in the automotive industry. Most recently he was managing director at the Liebherr-Ettlingen remanufacturing centre.

MARKETPLACE

International Cranes and Specialized Transport's Marketplace is designed to help readers find the products and services they need. The Marketplace is divided into colour coded sections to help you quickly find what you need.



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47

Operational aids, communication systems, components, controls, software, crane mats and outrigger pads, crane repair, hydraulics, jacks, attachments, personnel baskets, rigging hardware, rollers, slings and chains, tires, winches, wire rope, batteries, braking systems, and new, used and refurbished parts.

CRANES AND EQUIPMENT FOR SALE OR RENT

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Crane, rigging and lifting equipment for sale or rent, new or used.

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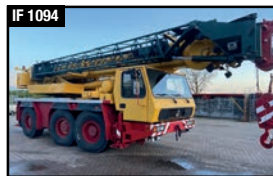
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GROVE GMK 3060
Year 2005
Tier 4i engine



IF 1099
GROVE GMK 4080-1
Year 2008
Very nice machine



USED CRANES

Tadano ATF 180G-5

Year 2015
Capacity 180 t
Main boom 60 m
Kilometers 17,891 km
Upper hours 2,802 h
Counterweight 50 t



Low hours and kilometers

Demag Challenger 3160

Year 2015
Capacity 55 t
Main boom 10.3 - 50 m
Kilometers 48,084 km
Carrier hours 6,723 h
Counterweight 6.8 t



Long boom + runner

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40 t Demag AC 40-1	2002	6x6x6	31,20m + 13,00m+1,20m
45 t Faun ATF 45-3	2006	6x6x6	34,00m + 15,00m
45 t Faun ATF 45-3	2005	6x6x6	34,00m + 15,00m
45 t Grove GCK 3045	2010	6x6x6	34,0m
55 t Terex-Demag AC 55 City	2006	6x6x6	40,00m + 1,30m
55 t Liebherr LTM 1055/1	2004	6x6x6	40,00m + 16,00m+2,50m
65 t Tadano Faun ATF 65G-4	2007	8x6x8	44,00m + 16,00m
80 t Grove GMK 4080-1	2006	8x6x8	51,00m + 15,00m
90 t Liebherr LTM 1090-4.1	2007	8x8x8	50,00m + 19,00m
95 t Liebherr LTM 1095-5.1	2014	10x8x10	58,00m + 19,00m
100 t Terex-Demag AC 100/4L	2016	8x6x8	59,40m + 19,00m
110 t Tadano Faun ATF 110G-5	2008	10x6x8	52,00m + 16,00m+Runner
130 t Grove GMK 5130-1	2007	10x8x10	60,00m + 18,00m
140 t Terex-Demag AC 140	2013	10x6x8	60,00m + 17,00m
150 t Liebherr LTM 1150-5.1	2005	10x8x10	56,00m + 21,00m+3,40m
150 t Liebherr LTM 1150-6.1	2009	12x8x12	66,00m + 19,00m
160 t Tadano Faun ATF 160G-2	2010	10x8x8	60,00m + 13,20m
160 t Terex-Demag AC 160-2	2006	10x8x10	63,90m + 33,00m

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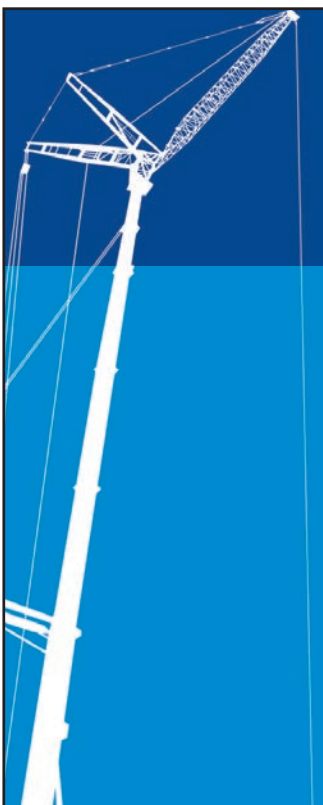
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1x	130 t	Liebherr LTM 1130-5.1	NEW!
1x	220 t	Tadano AC 5.220-1	NEW!
1x	250 t	Tadano AC 5.250-1	NEW!
1x	300 t	Demag AC 300-6	2019

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1x	650 t	Demag CC 3800 + WIND	
1x	650 t	Demag CC 3800 + BOOM BOOSTER	

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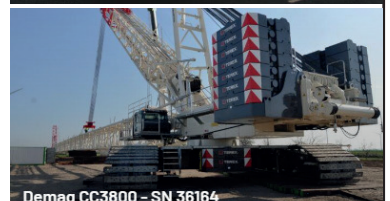
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450 t	Liebherr	LTM 1450 N	1992	16 x 8 x 14	50 / 61 / 84	direct
400 t	Liebherr	LTM 1400	1988	16 x 8 x 12	50 / 61 / 84	direct
200 t	Liebherr	LTM 1200-5.1	2010	10 x 8 x 10	72+ / 36	direct
160 t	Tadano-Faun	ATF 160G-5	2010	10 x 8 x 8	60 / 13.2+run.	direct
160 t	Terex-Demag	AC 160-2	2006	10 x 8 x 8	63.9 / 33	direct
150 t	Liebherr	LTM 1150-6.1	2009	12 x 8 x 12	66 / 19	direct
150 t	Liebherr	LTM 1150-5.1	2005	10 x 8 x 10	56 / 21 / 3.4	direct
140 t	Terex-Demag	AC 140 Compact	2013	10 x 6 x 10	60 / 17	direct
130 t	Liebherr	LTM 1130-5.1	2007	10 x 8 x 10	60 / 19	direct
130 t	Grove	GMK 5130-1	2007	10 x 8 x 10	60 / 18	direct
110 t	Tadano-Faun	ATF 110G-5	2008	10 x 6 x 8	52 / 16.2+run.	direct
100 t	Terex-Demag	AC 100-4 L	2016	8 x 6 x 8	59.4 / 19	direct
100 t	Terex-Demag	AC 100	2008	10 x 8 x 8	50.2 / 9.2+run.	direct
100 t	Grove	GMK 4100	2007	8 x 6 x 8	52 / 17	direct
100 t	Liebherr	LTM 1100-5.1	2006	10 x 8 x 8	52 / 19	direct
100 t	Liebherr	LTM 1100/2	2003	10 x 8 x 8	52 / 19	direct
95 t	Liebherr	LTM 1095-5.1	2014	10 x 8 x 10	58 / 19	direct
90 t	Tadano-Faun	ATF 90G-4	2009	8 x 8 x 8	51.2 / 1.6	direct
90 t	Liebherr	LTM 1090-4.1	2007	8 x 8 x 8	50 / 19+run.	direct
80 t	Grove	GMK 4080-1	2006	8 x 6 x 8	51 / 15+run.	direct
80 t	Liebherr	LTM 1070-4.1	2005	8 x 6 x 8	50 / 16	direct
70 t	Liebherr	LTM 1070/1	1997	8 x 8 x 8	40	direct
65 t	Tadano-Faun	ATF 65G-4	2010	8 x 6 x 8	44 / 1.6	March
65 t	Tadano-Faun	ATF 65G-4	2007	8 x 6 x 8	44 / 16	direct
65 t	Tadano-Faun	ATF 65G-4	2006	8 x 6 x 8	44 / 16	direct
65 t	Faun	RTF 65-4	1994	8 x 6 x 8	40.5 / 16	direct
60 t	Liebherr	LTM 1060/2	2004	8 x 6 x 8	42 / 17	direct
60 t	Liebherr	LTM 1060/2	2003	8 x 6 x 8	42 / 17	direct
55 t	Liebherr	LTM 1055-3.2	2012	6 x 6 x 6	40 / 16	direct
55 t	Terex-Demag	AC 55 City	2006	6 x 6 x 6	40 / 1.3	direct
55 t	Grove	GMK 3055	2006	6 x 6 x 6	43 / 15	direct
55 t	Liebherr	LTM 1055-3.1	2005	6 x 6 x 6	40 / 16+2.5	direct
55 t	Liebherr	LTM 1055/1	2004	6 x 6 x 6	40 / 16+2.5+r.	direct
45 t	Grove	GCK 3045	2010	6 x 6 x 6	34	direct
45 t	Faun	ATF 45-3	2006	6 x 6 x 6	34 / 15.2	direct
45 t	Faun	ATF 45-3	2005	6 x 6 x 6	34 / 15.2	direct
40 t	Liebherr	LTM 1040-2.1	2006	4 x 4 x 4	35 / 9.5	direct
40 t	Liebherr	LTM 1040-2.1	2006	4 x 4 x 4	35	direct
40 t	Terex-Demag	AC 40-1 City	2002	6 x 6 x 6	31.2 / 13 / 1.2	direct
40 t	Demag	AC 95	1997	4 x 4 x 4	32.2	direct
35 t	PPM	ATT 400/3	2001	4 x 4 x 4	30.4 / 8	direct
30 t	Grove	AT 635 B	1997	4 x 4 x 4	30 / 13.1	direct

ROUGH TERRAIN CRANES						
Capacity	Manufacturer	Type	Year	Drive/Steering	Boom/jib (m)	Delivery
20 t	Kobelco	RK 200-3	2002	4 x 4 x 4	25 / 5.5	direct
60 t	Liebherr	LTL 1060	1984	4 x 4 x 4	32	direct

TRUCK CRANES						
Capacity	Manufacturer	Type	Year	Drive/Steering	Boom/jib (m)	Delivery
90 t	Grove	TMS 900 E	2006	8 x 4 x 4	43.2 / 17	direct
90 t	Grove	TMS 900 E	2005	8 x 4 x 4	43.2 / 17	direct

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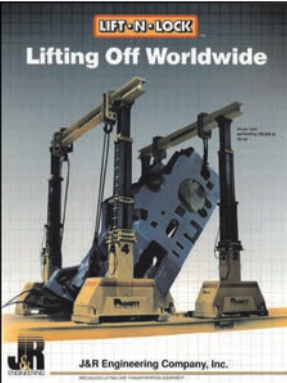




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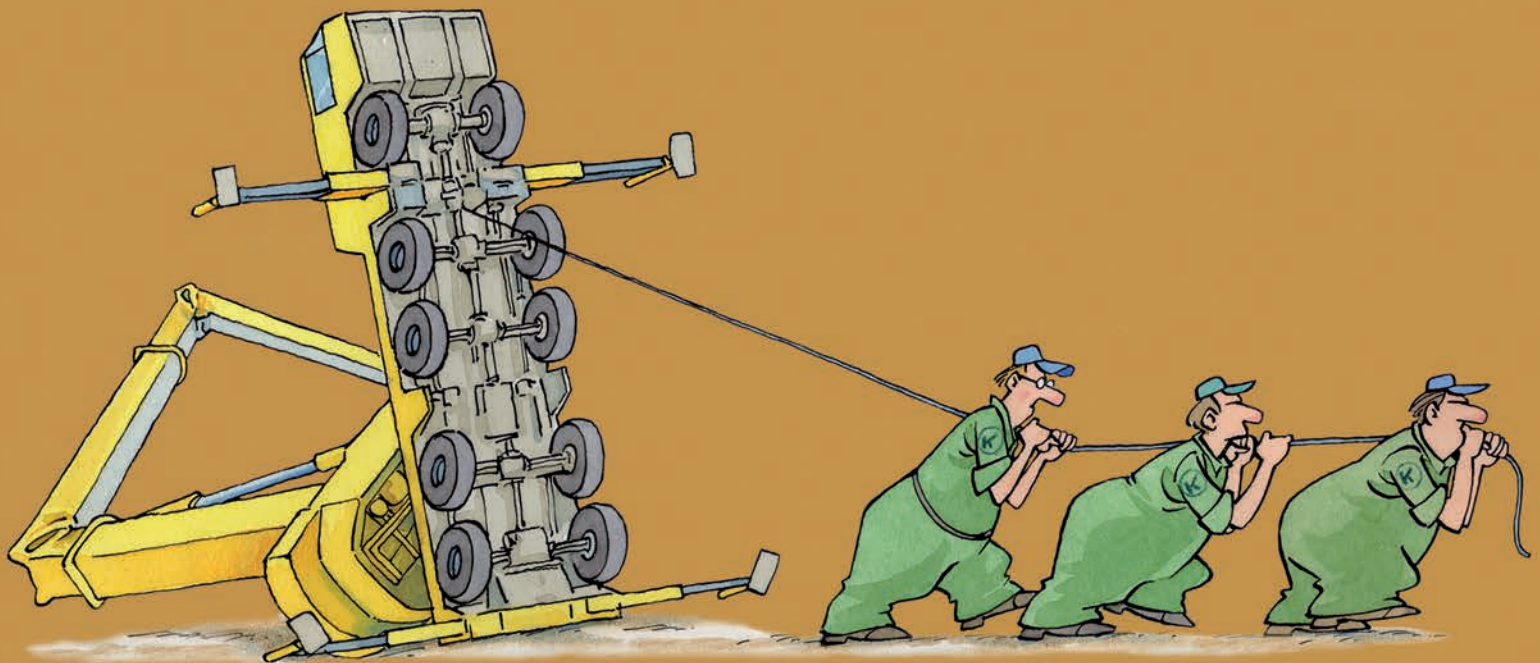
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